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BETTER FRUIT

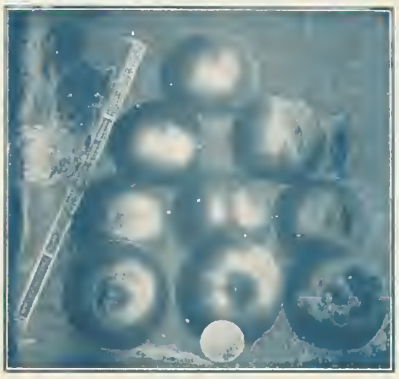
May 1909

PUBLISHED BY

BETTER FRUIT PUBLISHING COMPANY

HOOD RIVER, OREGON

These Apples grew in the WHITE SALMON VALLEY



Opposite Hood River

Soil, climate & location especially adapted for high grade fruit & berries. *Send* for our *Book* descriptive of this beautiful valley

PARTLY IMPROVED

No. 181. Forty acres seven miles northeast of the town of White Salmon and five miles from the Columbia River. This tract has a very desirable slope and is first-class fruit land, having a deep, rich, red shot soil. Four acres are planted to Spitzenberg and Yellow Newtown trees one year old, with strawberries and other small fruits for family use. Eleven acres are cleared and ready for use, and also four acres in timothy and clover, with plenty of water for irrigation. Remainder of tract is the best orchard land. Small house and outbuildings. Has an abundance of pure spring water. The possibilities of this tract for a commercial orchard and for a home are hard to surpass. Write for prices and terms. This tract can be had at a bargain.

White Salmon Land Co.

VAN VORST & WELLS, Managers, Successors to J. C. McInnes

WHITE SALMON, WASHINGTON

WATER IS KING

Irrigated Orchards

Are the only solution of the problem of INCOME during the five years necessary for the growth of the trees to the bearing age. This is a VITAL FACT which every homeseeker should take into consideration. By planting potatoes, tomatoes, berries and vegetables between the trees where irrigation is used, as high as $200 per acre has been taken off annually. In many cases the orchards pay for themselves, when irrigation is used, BEFORE they come into bearing, in addition to furnishing a living for the owner and family. Would you gamble on the elements in any other line of business? Don't take chances, then, in orcharding. Irrigation is insurance for a regular and heavy crop. If you have any idea of coming West: if you are tired of the uncertainty of farming there: if you are on a salary and want to better your condition: if, for any reason, you are interested in fruit growing, *you will be vitally interested* in the propostion of the Sutherlin Land & Water Company, which owns the wonderful Sutherlin Valley in Douglas County, Oregon. Don't fail to write today for a beautiful booklet (free) telling much of importance to you. It may mean an immense saving of labor and time to you and a competency that would otherwise be impossible.

Address

The Sutherlin Land & Water Co.

Head Offices: ROSEBURG, OREGON

JONATHANS NEWTOWNS

Prunes Peaches Pears Plums Apples

THE LAND OF OPPORTUNITY

A three-year-old Spitzenberg apple tree at White Salmon

Located across the Columbia River from Hood River, Oregon, the White Salmon Valley offers the greatest opportunities of any land on earth to fruit growers. Where apples, cherries, pears, peaches, prunes and strawberries grow to perfection. A few dollars invested in fruit land today will return to you in a very few years sixty-fold. The soil, climate, water and scenery are unsurpassed by that of any country. Build a home where you can enjoy peace and plenty the remainder of your life. Fruit lands cleared, planted and cared for until in a bearing condition. Write us for descriptive matter and prices.

Estes Realty & Investment Co.

WHITE SALMON, WASHINGTON

Berries Cherries Strawberries Nuts

SPITZENBERGS WINESAPS

WINTER APPLES

WILL MAKE A MAN RICH ON TEN ACRES OF

SPOKANE VALLEY LAND

SPOKANE RIVER CANAL

under the largest and best constructed Irrigation Canal in Eastern Washington. Close to a city of 120,000 people. Electric and Steam Railroads at your door. Fine climate; beautiful roads. A pleasant place to live.

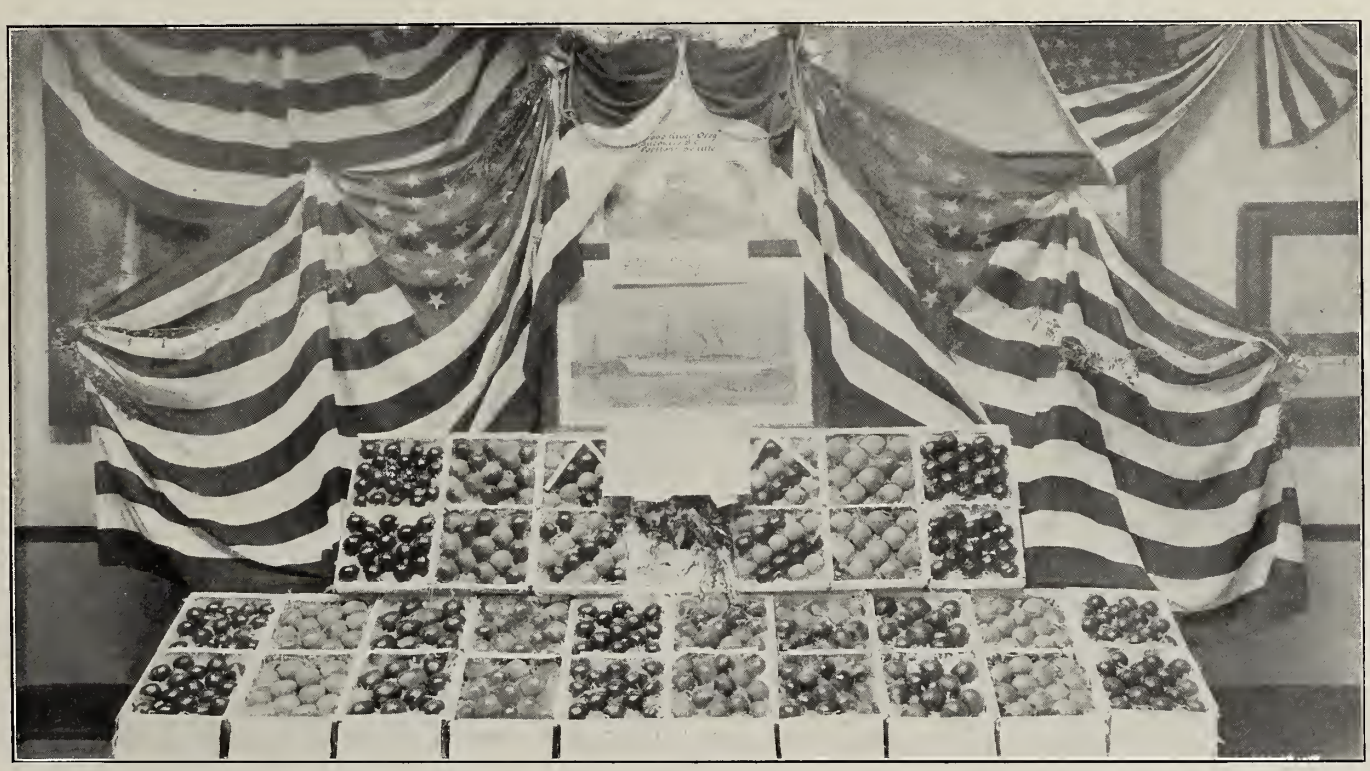
WRITE FOR INFORMATION. IT IS FREE

Becher & Thompson

110 Stevens Street *SPOKANE, WASH.*

HOOD RIVER
OREGON

Greatest Apple Growing Valley in the World



PART OF SHIPMENT OF HOOD RIVER APPLES OWNED BY YAGDJOGLOU BROS. OF VLADIVOSTOK, EAST SIBERIA
Stopped en-transit and exhibited in Portland. In order to insure extra protection for their long voyage they are packed in cranberry boxes

Where fruit pays from $500 to $1500 per acre and is marketed for you at the highest prices paid anywhere in the world, while still on the tree. Forty thousand acres of finest apple land still undeveloped. One hundred thousand horsepower going to waste in its streams. Population, 6000; value fruit products, 1907, $400,000; value lumber output, 1907, $750,000; taxable property, $2,700,000; bank deposits, 1901, $36,000; 1907, $690,494.31. Railroad and water transportation. Two hours from Portland, twelve hours from Seattle and Spokane. Rural mail delivery. Phone service covering city and valley. Let us tell you about it.

DO IT NOW—TO-DAY

ADDRESS

Publicity Committee Hood River Commercial Club

HOOD RIVER, OREGON

Live facts in a lively way. Live facts for men and women. Facts that affect you — your family

Hood River Valley
APPLE LANDS

Are paying from $400 to $700 an acre to their owners. Many started in a small way, today they are independent. You can begin today. It pays to see us

He who investigates for himself becomes "the man who knows"

W. J. BAKER & CO.
Hood River, Oregon

Benton, the Blue Ribbon County of Oregon First Premium State Fair 1907-08

Corvallis, Oregon

County seat of Benton, in the heart of the famous Willamette Valley. Greatest dairy section of the West. Land unsurpassed for walnuts and fruit. Irrigation not required. Apples and peaches have better flavor and keep longer than those grown under irrigation. Extensive plantings of commercial orchards near Corvallis. The best farm lands cheaper than at any place in the valley; no inflated values. Corvallis has a population of 6,000; 200 new residences constructed since January 1, 1908. Oregon Agricultural College, the largest educational institution in the Northwest, 1,500 students, located here. Pure mountain water and all modern conveniences. No extremes in temperature. Opportunities here worth your while. For particulars write

CORVALLIS COMMERCIAL CLUB

North Yakima

Principal City in the Yakima Valley

Centrally located in one of the finest fruit regions of the State. Excellent home town. Headquarters for sale of bearing orchards and thirty thousand acres orchard land under new government canal. *For information address*

COMMERCIAL CLUB
North Yakima, Washington

A Fruit Ranch in Washington
Is a paying investment

I have for sale one consisting of about
220 acres of YOUNG bearing apple trees of choice varieties.
180 acres in cultivation for grain and grasses.
60 acres in pasture, etc.

460 acres in all.
Soil is deep and rich. Running water piped to all farm buildings. At a shipping point. Telephone and daily mail.

Price $55,000.00

R. H. Lacey Colfax, Washington

MOSIER

Also called East Hood River

FRUIT LANDS

In large or small tracts. Some very good land at low prices at present. Good growing community. Six miles east of Hood River. Parties wishing to buy will do well to write or see

GEO. CHAMBERLAIN
MOSIER, OREGON

THE BEAUTIFUL
White Salmon Valley

Land for Strawberries
Land for Orchards
Land for Dairying
Land for Stock Raising

For Sale By

Egan Hair Real Estate Co.
WHITE SALMON, WASHINGTON

THE DALLES, OREGON

"The Cherry City"

BEAUTIFULLY located on the Scenic Columbia River just east of the Cascade Range of Mountains, where apples, pears, peaches, cherries and apricots are grown to perfection without irrigation. Choice fruit land in small tracts offered at $50 to $150 per acre on easy terms. *Address*

THE DALLES BUSINESS MEN'S ASSOCIATION

HUDSON LAND CO.
The Dalles, Oregon

Fruit, Wheat and Stock Farms

For sale in Eastern Oregon and Washington. Acre tracts in any quantity desired, with or without trees planted, within one mile of city. We are sole agents for the sale of five and ten-acre tracts in Peachland Park, which we can sell you on easy installments and care for the orchard until it is in full bearing. This is a beautiful tract of land situate one mile west and overlooking the city. The soil is a rich, deep, sandy loam, and is set out on the most approved methods to peaches and cherries. Some of the trees are three years old. Write to us for full particulars.

A CHANCE OF A LIFETIME TO SECURE TEN ACRES OF

CHOICE APPLE LAND

This tract is located only *four miles* from *Hood River* across the Columbia River at Underwood, Washington, in the famous White Salmon Valley with a grand view of the Columbia River and Hood River Valley. *No waste land.* All rich, deep soil. Good natural air and water drainage. *No frost*

AT ONLY $100 PER ACRE

I am selling this ten acres cheap for cash because I want the money to set my ten acres adjoining to orchard.

Address C. R. GREISEN, Hood River, Oregon

THE HOOD RIVER LAND EMPORIUM

HOOD RIVER, OREGON

POSSESSES

CLIMATE—A desirable medium between the drier eastern and the more moist western conditions of the Northwest.

SOIL—Volcanic ash, rich in phosphates, and recognized as the best in the world for apples and strawberries.

Makes a specialty of real estate, conveyancing, loans and surveying. The president, John Leland Henderson, is a practicing lawyer residing in Hood River, and has been identified with the Hood River Valley for thirty years.

Willamette Valley Fruit Lands

in tracts to suit. Rich soil, delightful climate. For descriptive literature write

OLMSTED LAND CO., Salem, Oregon

LAND

OF BIG, RED APPLES

WE ALWAYS HAVE SOME

CHOICE TRACTS TO OFFER

At popular prices and sell them strictly on their merits. Years of study given to Hood River and its products. Can sell you intelligently. Call on or address

Geo. D. Culbertson & Co.

Leading Land Agents Hood River, Oregon

English Walnuts

AND

Royal Ann Cherries

We are the largest owners and planters of walnuts in Oregon. Our properties are in Yamhill County, the Walnut County. We sell planted five acre tracts $100 cash and $15 per month with four years' care

The Churchill-Matthews Co.

Incorporated

Lumber Exchange Building, Portland, Oregon

E. YOCKEY A. M. BEAVER

YOCKEY & BEAVER

REAL ESTATE, INSURANCE AND LOANS

ORCHARD LANDS A SPECIALTY

CITY HOMES, BUSINESS PROPOSITIONS, ETC.

"Ashland the Beautiful"

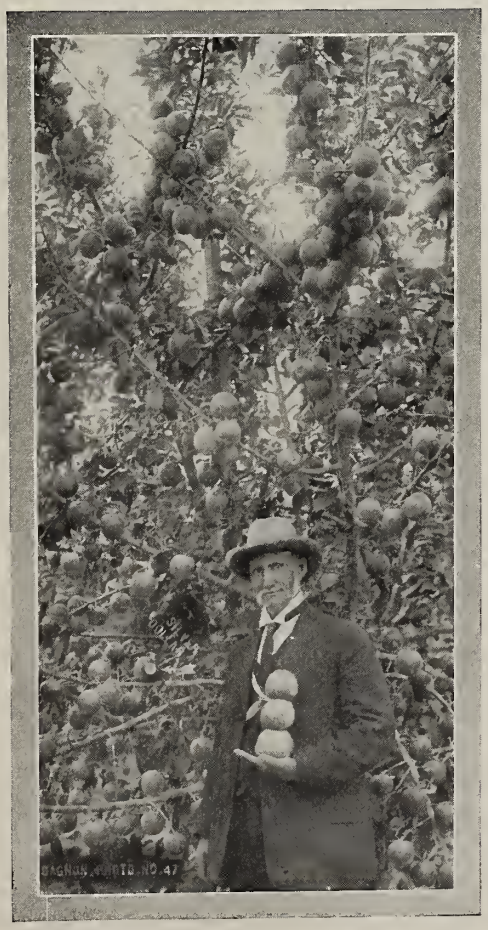
Is noted as the health metropolis of Southern Oregon, possessing the purest mountain air and water in the world, besides containing medicinal springs of high quality. It is also noted for luscious fruit of all kinds, and as being the producer of the famous Newtown Pippin and Spitzenberg apples, the best in the world. Fine orchard land for sale at living prices, ranging from $55 to $250 per acre for the raw land, according to location, etc. Developed orchards higher. Correspondence solicited.

YOCKEY & BEAVER, Ashland, Oregon

White Salmon Valley Land

I HAVE 120 acres of fine apple and strawberry land one and one-half miles from town of White Salmon that will cut to advantage in five, ten and twenty acre tracts. This tract is well located, with fine view of surrounding valley and in plain view of beautiful snow-capped Mt. Hood. Will sell all or part. Also other tracts.

F. L. GORDON WHITE SALMON, WASHINGTON



Wenatchee Valley Irrigated Fruit Lands

Are paying 10 to 25 per cent on the investment (aside from the increase of investment price). Are you doing better? Make it a special point to visit

Wenatchee

on your trip to the Seattle Fair. Write for a free ILLUSTRATED BOOKLET

Red Apple Real Estate Co.

A. J. LINVILLE & SONS

Wenatchee, Washington

ROGUE RIVER VALLEY

Famous for its APPLES, PEARS, PEACHES, GRAPES, MELONS AND CLIMATE

THE natural home of the Spitzenberg and Newtown apples. Rogue River pears have led the United States for past five years in the highest price in the New York market. No peaches of the South excel those of Rogue River, and trees are healthy. Grapes perfection in color and flavor and the best of shippers, and growers have more orders than they can fill. Rogue River cantaloupes, watermelons and cassabas, none better and big money makers. The Rogue River Fruit Growers' Union gets the highest price for fruit, and the Southern Pacific gives terminal rates on shipments East. Climate the perfect medium between arid California and webfoot Oregon. No storms or winds to injure fruit crop. Almonds and figs ripen perfectly and palms grow in the yards. Land yet cheap, but will double in two years. American community and good schools, rural mails, telephones, etc. Full information by addressing CHARLES MESERVE, Medford, Oregon, Seller of *Real Estate in All Parts of Rogue River Valley.* References by permission: Rogue River Fruit Growers' Union, First National Bank of Medford.

HOOD RIVER APPLE LAND

For Sale on Easy Terms

10 acres uncleared, per acre	$125
24 acres one-half in trees and strawberries	$5,000
40 acres 10 cleared and in apples	$5,000
80 acres uncleared, per acre	$30
25 acres 22 in apples	$13,000
30 acres 25 in apples and berries	$30,000

J. Adrian Epping, Hood River, Oregon

Richey & Gilbert Co.
H. M. Gilbert, *President and Manager*
Growers and Shippers of
YAKIMA VALLEY
FRUITS AND PRODUCE
Specialties: Apples, Peaches, Pears and Cantaloupes
TOPPENISH, WASHINGTON

CORRESPONDENCE SOLICITED
RYAN & NEWTON CO.
Wholesale Fruit and Produce
BUTTE, MONTANA
We have modern cold storage facilities essential for handling your products. A strong house that gives reliable market reports and prompt cash returns

H. WOODS CO.
WHOLESALE FRUITS
and
COMMISSION
Apples, Peaches and Strawberries
127 South Water Street
CHICAGO, ILLINOIS

PORTLAND
BROKERAGE CO.
Consignments solicited with quick returns
FRUITS, PRODUCE
BUTTER AND EGGS
Telephone A 5758
206 Stark St., Portland, Oregon
Between Front and First Streets

FAMOUS HOOD RIVER
Strawberries
THE FINEST BERRY ON EARTH AND THE BEST SHIPPER
LOOK GOOD, BUT TASTE BETTER
Fancy Pack Guaranteed
FRUIT GROWERS UNION
Hood River, Oregon

Mark Levy & Co.
COMMISSION MERCHANTS
WHOLESALE FRUITS
121-123 FRONT AND 200 WASHINGTON ST.
PORTLAND, OREGON

Levy & Spiegl
WHOLESALE
FRUITS & PRODUCE
Commission Merchants
SOLICIT YOUR CONSIGNMENTS
Top Prices and Prompt Returns
PORTLAND, OREGON

FAMOUS HOOD RIVER
APPLES
Spitzenbergs, Newtowns,
Jonathans, Arkansas Blacks, Ortleys, Winesaps, R. C. Pippins, Baldwins, M. B. Twigs, Ben Davis
Look Good, Taste Better, Sell Best
GRADE AND PACK GUARANTEED
Apple Growers Union
Hood River, Oregon

THE OLD RELIABLE
BELL & CO.
Incorporated
WHOLESALE
FRUITS AND PRODUCE
109-115 FRONT STREET
PORTLAND, OREGON

O. W. BUTTS
Wholesale Fruits and Commission
STRAWBERRIES AND APPLES OUR SPECIALTY
A Strong House, Pioneer Dealer of Thirty Years' Experience
OMAHA, NEBRASKA

Directors
Geo. E. Bryant C. W. Corliss
H. L. Pinney
Seattle Fruit and Produce Auction Co.
INCORPORATED
GEO. E. BRYANT, Manager
Depository, National Bank of Commerce
Capital Stock, $25,000.
Wholesale Fruits, Vegetables and Produce
Berries in Car Lots
Our Motto, "Quick Sales and Daily Reports"
Phone, Sunset Main 5563 and Independent 5543
116 Railroad Ave. South, Seattle, Wash.

IF YOU WANT TO MARKET YOUR
FRUIT
RIGHT, ALWAYS SHIP TO
W. B. Glafke Co.
WHOLESALE FRUITS AND PRODUCE
108-110 Front Street
PORTLAND, OREGON

W. H. Dryer W. W. Bollam
Dryer, Bollam & Co.
General Commission Merchants
128 FRONT STREET
PORTLAND, OREGON
TELEPHONE MAIN 2348

Pearson-Page Co.

131-133 FRONT STREET
PORTLAND, OREGON

Superior facilities for handling

PEACHES APPLES AND PEARS

Solicit Your Consignments

Reliable Market Reports *Prompt Cash Returns*

THE

DAVIDSON FRUIT CO.

of

Hood River, Oregon

Pioneer fruit packers and shippers of this famous section. "Quality" is our watchword, and "Fruit Worth the Price" is our motto. Wire or write us for apples, strawberries or pears in season in car lots or smaller shipments. Other fruits in season in less quantities.

Ryan & Newton Company

Wholesale Fruits & Produce

Spokane, Wash.

We have modern cold storage facilities essential for the handling of your products.

Reliable market reports

PROMPT CASH RETURNS

YAKIMA COUNTY HORTICULTURAL UNION

NORTH YAKIMA, WASH.

E. E. Samson, Manager

APPLES, PEARS, PRUNES, PLUMS, PEACHES, CHERRIES, APRICOTS, GRAPES AND CANTALOUPES

Mixed carloads start about July 20. Straight carloads in season. Our fruit is the very best grade, and pack guaranteed.

We Use Revised Economy Code

Apple Storage

ST. LOUIS is the best local market and distributing point to ship your apples, and hold on cold storage, for highest winter prices.

OREGON, WASHINGTON & IDAHO *Fruit Associations, Growers & Shippers*

I solicit your carload shipments of box apples this fall for cold storage here. Will advance freights and pay insurance, charging usual commission and interest.

Storage rates 15 cents per box for season ending May 1.

Only Extra Fancy Fruit wanted.

I do business with the Mound City Ice and Cold Storage Company, the largest and most modern apple storage house in the middle West. Cars unloaded direct into coolers.

F. S. Timberlake

3019 North Broadway Street
St. Louis, Mo.

Bank and other References

LINDSAY & CO. LTD.

Wholesale Fruits

HELENA, MONTANA

Established in Helena Quarter of a Century

Branch houses: Great Falls, Montana; Missoula, Montana; Billings, Montana.

Fruit Facts

Chelan County won 35 gold medals on fruit exhibits at the Portland Exposition, 1905. This record was not equaled by any other county on the Pacific Coast. We will have 75 to 100 cars of apples: Winesaps, Spitzenberg, Rome Beauties, Lawvers, Jonathans, etc., all packed under the supervision of this association. Correspondence solicited.

Wenatchee Valley Fruit Growers' Association

WENATCHEE, WASHINGTON

M. O. TIBBETTS, *President* E. T. BALCH, *Secretary*

DAVENPORT BROS.

WHOLESALE FRUIT & PRODUCE

Growers and Shippers of the Famous

Mosier Valley Fruits

Portland, Oregon

D. CROSSLEY & SONS

Established 1878

APPLES FOR EXPORT

California, Oregon, Washington, Idaho and Florida fruits. Apples handled in all European Markets. *Checks mailed from our New York office same day apples are sold on the other side.* We are not agents; we *sell* apples

200 TO 204 FRANKLIN STREET, NEW YORK

LIVERPOOL NEW YORK BOSTON GLASGOW

A PARTIAL LIST OF BARGAINS

FOR SALE BY

R. FIELD & CO.

White Salmon
Washington

You will have to act quickly if you want any of them because land in this famous

White Salmon Valley

is rapidly increasing in value. We have sold many tracts of land in the last three years and those who bought from us are all well pleased. We can refer you to them. We also have bargains in city property and are daily listing other outside tracts which we will be glad to show you. We guarantee every tract as good as represented.

No. 167—4 acres close to town. Very rich fruit land and early strawberries. Unimproved, some slashed, and will make a nice home. Price, $1,800. One-half cash, balance on terms.

No. 168—40 acres, five miles from White Salmon; most all cleared and practically level, rich, red shot soil. About 50 fruit trees set out and in bearing. One of the best improved tracts on our list. Price, $3,000. Half cash, balance to suit.

No. 169—80 acres fine fruit land in the apple belt. About 30 acres cleared; some fruit trees. Practically level, rich soil. First class apple land. Price, $4,000; terms.

No. 170—40 acres, six miles out; unimproved. Very easily cleared; rich deep soil. About one-half of this forty is fine apple land, the balance is too rough for cultivation, but is a snap at $850. Only $300 cash, balance to suit.

No. 171—70 acres, six miles out. Unimproved; 20 acres tillable, rest pasture land; can be easily cleared and has a running creek on one side of the land. Only $1,100; $500 cash, balance on time.

No. 172—39 acres, five miles out. Mostly unimproved, but has some clearing. All good fruit land, easy to clear. School and church on place. Price, for a short time, $2,600; terms to suit.

No. 173—100 acres fine fruit land, four miles from White Salmon. Very rich soil and a nice, gently-rolling slope for apple orchard; has a small clearing on it with some fruit trees in bearing. Would divide into small tracts nicely. There is a good spring on the place and enough timber to pay for clearing it. Price, $5,000; half cash.

No. 174—20 acres in the apple belt. About all level land; some two acres cleared on it, with small orchard in bearing; rest is covered with first class fir timber, good for lumber. Price, $1,500; terms.

No. 175—80 acres, four miles out; 70 can be cultivated. All unimproved land; good for apples or any other fruit. A good buy at $50 per acre; half cash.

No. 176—58½ acres, 4½ miles out, two miles from railroad station and boat landing. All good fruit land except 8 acres which is too steep to cultivate. Creek runs through the place; three good springs. 20 acres in cultivation; 4 acres in bearing orchard, 12 years old, mostly apples; 50 trees ready to set out. Good five-room house, barn and other outbuildings, all under fence and on county road. Price, $5,000; terms.

No. 178—200 acres in the White Salmon Valley, 3½ miles from Husum. Unimproved; close to White Salmon river; a good place to sell in small tracts or an investment. There is some fine fir and oak timber on place. Will make good apple orchards. Price only $22 per acre.

No. 179—20 acres, three miles from town. Level land, rich soil, about 8 acres cleared; fine apple and strawberry land. Price, $4,250 cash.

No. 180—20 acres, 3½ miles out; 4 acres cleared; good fruit land, rich red shot soil. Price, $2,500; half cash.

No. 181—8 acres, close in. Rich soil, good for fruit or berries; directly under the proposed irrigating ditch; all level. Small bearing orchards; ¾ acre of strawberries; all under fence. Good level road from town. An ideal home at $2,800, on good terms.

No. 182—10 acres, one-half mile out. Deep, rich soil; 7½ acres in high state of cultivation; gentle southwest slope, easily cultivated; very early fruit and berry land. The irrigating ditch will run on the north line, making very little expense to connect. Has 6 acres out to fruit trees from one to three years old; one acre to strawberries; balance of land easily cleared. Nicely sheltered and a magnificent view. Good new nine-room house just built; plenty of tools, such as plows, harrows, cultivators, etc. This can be made one of the best homes in White Salmon. Price, $5,000; can be had on easy terms.

No. 185—6 acres in fruit home colony; about one acre cleared and very rich land; close to White Salmon River. Price, $600 cash.

No. 187—5 acres, close to town. Unimproved, nice level ground; has some rock on it. Would make a nice chicken and fruit farm. Price, $650; $150 cash, rest time.

No. 188—40 acres, unimproved; two miles from postoffice, in valley, with good fir timber on it; close to sawmill; good land. Price, $1,250; half cash, rest to suit.

No. 189—40 acres, three miles from White Salmon River. Rich, red shot soil, with about 30 acres cleared; running water on place, good house and small barn; a few fruit trees set out. This place has about 8 acres of rich bottom land on it, for onions and vegetables. Price on this is only $2,500; $1,500 cash, rest time to suit.

No. 190—80 acres rich land, close to Gilmer. Fine red shot soil; good apple land. Has a creek running through it. 1,000,000 feet of fir timber. There is some 15 acres cleared on it; will make a fine general farm. Price, $3,000; half cash, rest to suit.

No. 192—40 acres, unimproved, eight miles out. Good, red shot soil; apple land; about 25 acres is fine level land; 15 acres is rolling. Price, $1,100; $500 cash, rest terms.

No. 196—160 acres, nine miles out. Unimproved, with some fine fir timber on it; some is rolling and some is level land; soil rich red shot. Only $16 per acre; terms, half cash, rest two years.

No. 199—30 acres, one mile from town; 15 acres cleared and mostly set out to fruit trees and strawberries; all under fence, with a fine creek of water running through it, which can be used for irrigating about 3 acres for garden which is very rich bottom land. Soil is light volcanic ash, very rich and good to keep up moisture in summer. Price, $10,000.

No. 201—8 acres 1½ miles from White Salmon. Fine land, half cleared and set out to fruit trees and strawberries; very rich red shot soil. In the irrigation district and will make a nice home. Price $2,800; half cash, rest in 3 years.

No. 202—A fine unimproved 40 acres close to Husum, in the White Salmon Valley. Good soil for Spitz. and Newtowns. Is mostly level and is a good buy at $4,000; half cash, rest in 2 years.

No. 203—40 acres 1½ miles from Snowden; 30 acres nice land, rest is rolling; some good fir timber. Good apple land, at only $1,000, and will also sell 80 acres at same place at $2,000.

No. 204—160 acres 9 miles from White Salmon. Good rich soil with large percentage volcanic ash; has a spring and creek on place. Would do well to cut up in 20-acre tracts; 140 acres tillable, 20 acres is rough; also 3,000,000 feet of fir timber on this place and not far to saw mill. Timber will more than half pay for the land and the price is only $35 per acre. Terms.

No. 205—55 acres 2 miles from Husum; about 3 acres cleared; 40 acres level, rest is rolling. A good bargain at $3,000; terms.

No. 206—40 acres 7 miles from White Salmon; the very best of fruit land; lies just nicely rolling for apples. There are some 8 acres cleared and rest mostly cleared; with a little work all can be put in soon. There are 500 fruit trees set out on it. The price is right, $4,500; half cash, rest five years' time.

No. 207—160 acres 2 miles from Husum, unimproved; partly good for cultivation, partly pasture land; some good fir timber on it. A snap at $20 per acre.

No. 208—160 acres 8 miles out; 90 acres level, rest is rolling, too steep to cultivate. Very rich red shot soil; 22 acres in high state of cultivation, 20 acres in orchard, mostly all bearing, in good condition. A house 18x30, 7 rooms, barn and other outbuildings. Price $10,000; terms half cash. The orchard will pay for the land in a few years.

No. 209—160 acres 4½ miles from White Salmon; 2 acres cleared and in bearing orchard; some is level and some rolling land; a fine piece to cut into small tracts. Price $65 per acre.

No. 210—We have for a short time for sale the famous Ziegler fruit farm in the apple belt, three miles from White Salmon; 120 acres; 25 acres in fruit trees just in bearing, Spitzenbergs and Newtowns. The soil is very rich red shot, that from 120 acres half can be cultivated; rest is too rough. This place will pay for itself in a short time. Price only $9,000; $3,000 cash, balance, terms to suit.

CRESSWELL in Lane County

a part of the famous
Willamette Valley
IN OREGON
The home of the Apple, Cherry and Walnut, the nursery of Berries, Vegetables and Flowers is the place.

TUESDAY, JUNE 1st, A. D. 1909

is the time when we will commence selling in five, ten and twenty acre tracts the land.

FOR FULL INFORMATION ADDRESS DEPT. "B. F."

The A. C. Bohnstedt Company

CAPITAL $50,000 FULLY PAID.

LANDS — INVESTMENTS

FRUIT LANDS A SPECIALTY

629 Palace Bldg. Minneapolis Minn.

Growing Fancy Apples in Hood River

HOOD RIVER ORCHARD IN BLOOM, GIVING PROMISE OF GOLDEN RETURNS

Profitable, Enjoyable, Healthful

Break away from your office and get back to nature

¶ No restless nights when your competitors cut prices.
No worries over bad accounts.
No parasites but what can be killed.
No fires, no insurance.
No question about selling your crop.
No failures in Hood River.
Nothing to do but work and enjoy life.
Can you think of a more delightful occupation?
Your boys will make better men and your daughters better women if they are brought up among the delightful environments that Hood River affords.

DON'T DELAY ANY LONGER

Now is the time to make the change. Write us today for list of

Orchard Farms, City Property or Investments

We make a specialty of the best class of properties and give only reliable information

J. H. Heilbronner & Co., Davidson Building, Hood River, Oregon

[The Reliable Dealers]

HOOD RIVER LEADS THE WORLD

You will make a MISTAKE if you do not investigate some of these bargains

FOUR-YEAR-OLD APPLE ORCHARD IN HOOD RIVER VALLEY

27 Acres In a high state of cultivation, right in the heart of the valley, on main county road, only 3½ miles from Hood River; 16 acres in bearing commercial orchard, 9 acres of which is in Yellow Newtowns and Spitzenbergs 13 years old; 6 acres in Yellow Newtowns, Spitzenbergs and Jonathans 7 years old; 1 acre in Ben Davis 8 years old; 2 acres in Bing and Lambert cherries 4 and 5 years old. Most of the balance of the place is in meadow and alfalfa. Nine inches of water goes with the place. Improvements consist of large two-story frame house in good condition; new barn, just finished at a cost of $1,500; suitable outbuildings. House and barn are electric lighted. This farm returned its owner $5,500 in profits season of 1908. Will double in profits in three years, as the younger orchard comes into full bearing. $5,000 under the market at price asked.

$8000 Cash

Will handle it, and the apple crops will pay the balance.

Six Acres Finest kind of land, only three miles from the town of Hood River; five acres in commercial bearing orchard; some strawberries. Horse, wagon, chickens, implements and farm tools all go with place.

$1500 Cash

Will handle it and will give five years' time on the balance. Price $4,500. Genuine bargain and an ideal little home for some one.

INTENDING purchasers of fruit lands in this world-renowned district should *STOP INVESTIGATING* and buy at once, before prices rise, which they are bound to do in a very material way before the season advances very far. Having up-to-date offices in both Portland and Hood River and a corps of capable and experienced salesmen, we are in a position to show a prospective buyer the best properties in the Hood River Valley on the market today. See us and be convinced.

DEVLIN & FIREBAUGH

510-511-512 Swetland Building, Portland, Oregon *Branch Office, Hood River, Oregon*

BETTER FRUIT

A MONTHLY ILLUSTRATED MAGAZINE PUBLISHED IN THE INTEREST OF MODERN AND PROGRESSIVE FRUIT GROWING AND MARKETING

IRRIGATION AND THE MEASUREMENT OF WATER

BY PROFESSOR EDWARD B. HOUSE OF COLORADO EXPERIMENT STATION, FORT COLLINS

"Little drops of water mixed with grains of sand
Make a mighty difference in the price of land."

WHY is it that the yields from our farms here in arid America are double and sometimes three or four times what they are in the East or humid America? Why are our fruits of better color and flavor and sell for higher prices in the markets?

Let us look into it for a moment. To make an ideal growth a plant must have fertile soil, heat, light, and moisture about the roots.

Why is that arid soils are usually more fertile than soils in humid countries? This can be explained by considering how soil has formed. Throughout the ages the rocks have been disintegrating, due to the action of frost, sun and air. Again, we must remember that the elements which make up the plant food must be soluble in order that they may enter the little root hairs of the plant. It is then easy to see how, in an arid country, there is nothing to remove these soluble elements from the soil, while in a rainy climate, as the years have passed and copious rains have fallen, the soil has been washed and washed and the compounds valuable to the plant as food have been washed away. They are, therefore, not found in as large quantities as they would be found were it not for the rains. We will find this true all over the earth—the arid soils are usually the most fertile soils.

Coming now to heat and light, we can easily see how it is that in a cloudy, rainy country we have less heat and less light than in an arid country. Compare the cloudy, rainy weather of New York and Pennsylvania with the almost perpetual sunshine of Colorado and we can easily see how much more favorable Colorado's climate is to plant growth if we supply the one thing—moisture for the roots. This can be done by irrigation, and when rightly done, I am sure you can all see why our wheat yield runs sixty and sixty-five bushels per acre; why our potatoes run two hundred to two hundred and fifty sacks per acre (twelve to fifteen tons); and why it is that our Eastern brothers will always doubt these statements until, like the Missourian, they have been shown.

How many times have I heard a "tenderfoot" say: "Give me a country where the water comes from the skies. That is God's country." And we must admit that wading around all day, shoveling mud and splashing through water, is anything but easy work; yet, when by these few days of labor we can, by this means, double or triple the yield of our Eastern friend, acre per acre, isn't the necessity of irrigation the greatest blessing a country can have? Then the pleasure of living in such a climate. Give me a bright, sunshiny day, rather than a cloudy, rainy one every time, and the more the better. I know it is hard on the complexion, but it is mighty good on the disposition.

The first point then—irrigation is a blessing, not a curse.

How few of us realize to what an extent irrigation is practiced upon the earth. We know here that people in Colorado, Utah, Wyoming, Idaho and New Mexico irrigate to a certain extent, but let us keep right on going and say all of western America practices it; then go south—Mexico, yes; Central America, yes; all of the western coast of South America, Argentine Republic; cross the Pacific Ocean and we find them irrigating in Australia; then up along the continent of Africa, and again we find people at it all along the southern coast of the Mediterranean Sea; cross over, and we find it again in Italy, some in France and Spain, a great deal in Russia and Siberia, some in China, tremendous works in India, all of Palestine, Arabia and Egypt. We have covered just about the most productive parts of the globe, and it will not now be so startling when the statement is made that eight-tenths of man's food supply is the result of irrigation.

Again, irrigation is as old as man. Wherever we find man of intelligence enough to write and leave records of his work, there we find records of irrigation. The civilization of Egypt probably goes

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F. E. Beatty, Pres. and Mgr. W. H. Burke, Sec. and Treas.
R. M. KELLOGG COMPANY
Breeders of Thoroughbred Pedigree Strawberry Plants

Three Rivers, Michigan, March 23, 1909.

E. H. Shepard, Editor "Better Fruit," Hood River, Oregon:

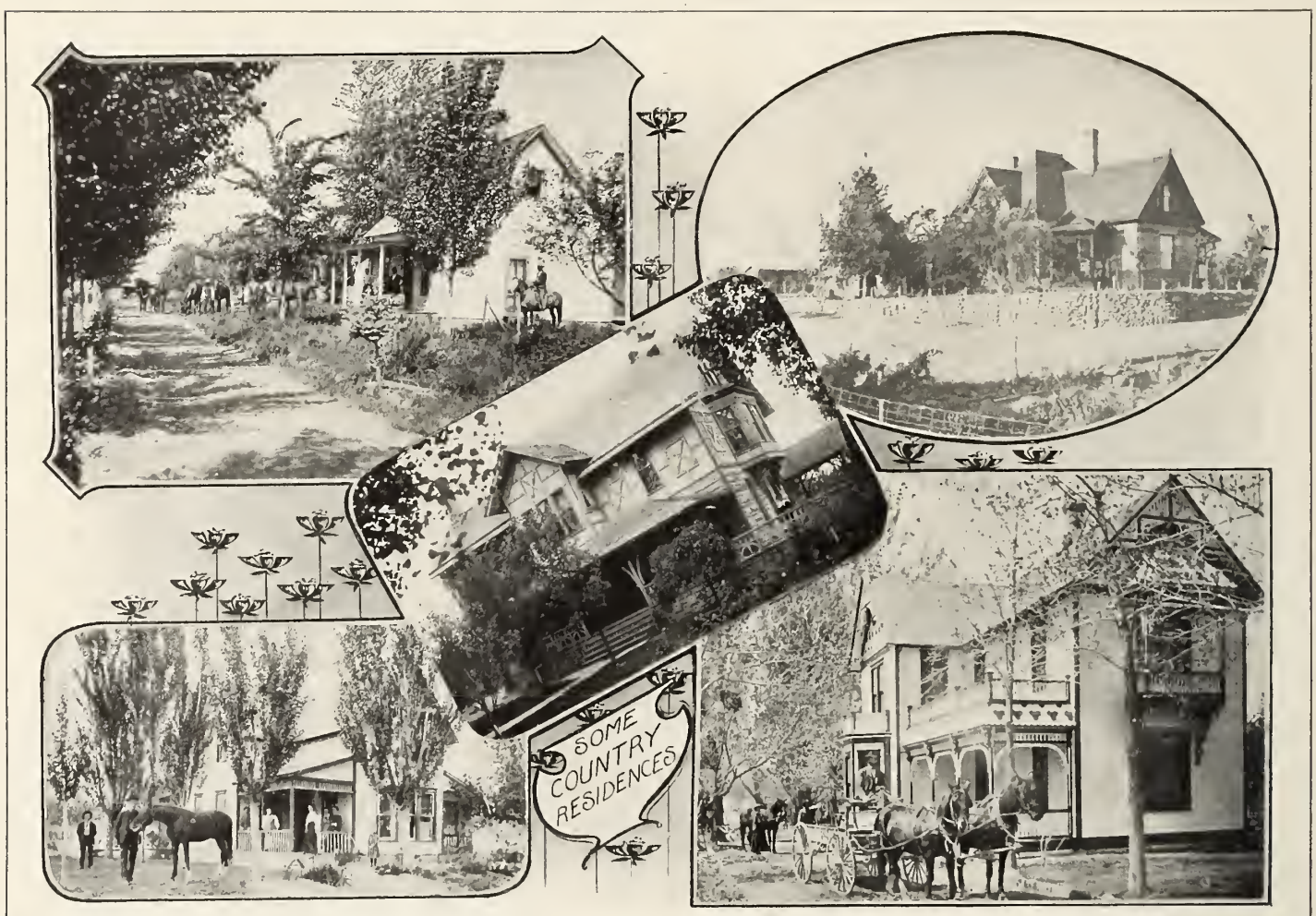
Dear Mr. Shepard—Permit the writer to make a suggestion, and that is that, considering the handsome paper you put out and the costly stock upon which it is printed and the fine presswork done, added to the high value of the matter it contains, your paper stands in a class by itself. Therefore, your advertising rates should be proportioned to the situation and should not be based, or only in part at least, upon circulation. In the first place, an advertisement composed and printed as you do the work is worth three times per thousand circulation what the same advertisement would be worth in a paper of poorer quality. In the next place, your paper specializes to a degree that insures the person who is engaged in the fruit business receiving from three to twenty times as much from a single insertion of an advertisement in your paper as he would do from a publication that did not specialize in fruit growing. I have had a sufficient experience as a publisher to know that the seat of the difficulty with publications like your own is a low advertising rate. Raise your rates, even though every advertiser in the publication cuts down the amount of space he now uses. I believe in a publisher giving to his patrons the very best that is possible to do, but I do not think it wise to make a perpetual sacrifice of one's self in order to do so. It is only fair that the fruit interests of Oregon and the Pacific Coast country in general should stand back of you, not in the way of donations, but simply in a business way, by paying you properly for services actually rendered. Wishing you all success, we are, as ever, Very truly yours, R. M. KELLOGG COMPANY.
By W. H. Burke.

back farther than that of any other country and its history antedates all others. Egypt has irrigated its fields from the most remote ages of Egyptian life. Some of the works are tremendous. One of the old canals there is over three hundred miles long, two hundred and fifty feet wide on the bottom, and carried water to a depth of thirty feet. We find a ditch there called "Joseph's Canal." It is supposed to have been constructed by Joseph when he was preparing for the seven years of famine.

In one of my classes some time ago we were speaking about this, and I called upon one of the students coming from Denver. I asked him this question: "George, who was Joseph?" He hesitated and flushed, and then said: "Well, he was a biblical character." "Yes," said I, "but what did he do?" "Well," he said, "he had a coat of many colors." "Now tell us," said I, "was he the fellow that Pharaoh's daughter found in the bulrushes?" "Yes," said he, "that's the chap." I hope, dear reader, that you are better versed in biblical history than was George.

Along this same line, there is a peculiar coincidence which may be news to some of us. We have all heard of the "Land of Canaan," the "land of milk and honey," with the Dead Sea at one end of a valley, mountains on each side, the Sea of Tiberius at the other end and the River Jordan joining them. This was the garden spot of the Old World. In the New World, at this time, almost directly on the other side of the world, there is another garden spot. It is a valley in Utah. The Great Salt lake is at one end, Utah Lake at the other end, and mountains on each side. The Mormons named the river joining these two lakes the Jordan River, and no doubt recognized the similarity of the two valleys. The similarity is very striking, not only in the shape of the two valleys, but also in the shape of the bodies of water.

We usually figure that irrigation is necessary where the precipitation is less than twenty inches per year; where it is between twenty and thirty inches it is usually then not necessary, but these countries are subject to periods of drouth which many times ruins the entire crop, and it would, therefore, be a very convenient thing and the very best of insurance to have a ditch ready to run water if necessary. If the rainfall is above thirty inches then usually irrigation is not practiced, although there are striking exceptions to this. Italy has an annual precipitation of sixty inches, yet most of it falls in the winter time; the same thing is true in California; in India the rainfall is excessive, running as high as three hundred inches per year, yet it does not come in the growing season and hence irrigation on a large scale is necessary. Here, at Fort Collins, Colorado, we have an annual precipitation of about fourteen inches, and fortunately, most of it comes during the growing season. Crops have been raised some years without irrigation. They are not, however, large yields, and I do not advocate dry farming. About the only ones who advocate dry farming are the "land sharks" and the tenderfeet. I suppose I should not be so radical about this, but really the statements made by the advocates of dry farming are so overdrawn and are so far from being warranted by the facts as they exist upon the dry farms today, that it almost disgusts one who knows the actual conditions of the dry-farming community.



VIEWS SHOWING BEAUTIFUL HOMES OF THE PROSPEROUS FRUIT GROWERS IN GRAND VALLEY, COLORADO

Measurement of Water

Of course, when anything is to be measured we must select certain units for measurement, and so it will be necessary to define the units in which quantities of water are expressed. First, the gallon; second, the miner's inch; third, the second foot; and fourth, the acre foot.

The United States gallon, as every one knows, contains two hundred and thirty-one cubic inches, and when water is measured in this denomination we generally express it as so many gallons per

minute or per day. This unit is not used much in irrigation, except in pumping plants.

The miner's inch, or the inch, as it is usually called, is very common in this section of the country. It comes to us from the old days of placer mining, when water from our mountain streams was used for this purpose. Let us define it thus: An inch is that quantity of water which will flow through an inch square orifice under a pressure of five inches. There is no element of time entering this definition. Evidently a certain quantity of water will pass through the above orifice in one second; double that quantity will pass through in two seconds, and sixty times that will pass through in one minute. The old miner, however, was not concerned with the time element, for he wanted a continuous flow. Locating in the early days in our mountains, he went to work, and perhaps struck pay dirt. Then others came and soon the whole valley was swarming with gold seekers. Soon the waters of the small mountain streams were all used and these early pioneers had to solve certain problems concerning the measurement of water. Who should have the first right to the water of the stream? They answered this in the only just way by saying, "The first one to use it." How much is he entitled to? And they answered that by saying, "The quantity that he was using when miner No. 2 came and commenced using water." Here is where we got our present doctrine of the priority of right, which is in general use in the irrigating sections today. This idea also demanded some means for measuring the amount of water, and as some of the miners were familiar with the method of allowing the water to flow through a slit in a board under a pressure or head, as was done in the Old World, this method was adopted and we had the miner's inch introduced into this section. Another thing. In measuring this five-inch head, where should the measurement be taken? As a rule, these miners were not experts in hydraulics; and so in one section of the country it became customary to measure from the surface of the water to the top of the hole; in another section they measured from the surface of the water to the bottom of the hole; while in a third, some one knew that the head should be measured from the surface of the water to the center of gravity of the opening, which, in this case, is the center of the hole. On this account, the inch is different in Colorado from what it is in California, and still different in Nevada. Colorado has defined the inch by statute, as follows:

"Water sold by the inch by any individual or corporation, shall be measured as follows, to-wit: Every inch shall be considered equal to an inch-square orifice under a five-inch pressure, and a five-inch pressure shall be from the top of the orifice of the box put into the banks of the ditch to the surface of the water; said boxes or any slot or aperture through which such water shall be measured, shall in all cases be six inches perpendicular, inside measurement, except boxes delivering less than twelve inches, which may be square, with or without slides; all slides for the same shall move horizontally, and not otherwise; and said box put into the banks of the ditch shall have a descending grade from the water in ditch of not less than one-eighth of an inch to the foot."

Let us add here, that in Colorado we consider 38.4 miner's inches equivalent to one second foot.

The second foot may be defined as follows: When the quantity of water flowing in a ditch equals one cubic foot per second, then we say that one second foot is flowing, or, to contract it still farther, we say that the ditch is running one foot of water. Likewise, a ditch is running five hundred feet if five hundred cubic feet of water pass down the ditch each second. Should we wish to express the quantity in inches, it can be done by multiplying the number of second feet by 38.4, the number of inches in a second foot (500x38.4 equals 19,200 miner's inches). In California, forty inches is equivalent to a second foot, while in Nevada they figure fifty inches to the foot.

The peculiar ideas which most of our farmers have upon the relation of the miner's inch and the second foot are sometimes amusing. I remember some time ago, in conversation upon irrigation with one of our old-timers, I mentioned

A FEW PICTURES OF THE ELEGANT HOMES OF GRAND JUNCTION, COLORADO, BUSINESS MEN, WHOSE PROSPERITY IS DUE TO THE FRUIT INDUSTRY

the relation of the inch to the second foot. He immediately said, "Why, yes, everyone knows that." What is it?" said I, and he answered, "Why, every foot contains twelve inches, I guess."

Again, there is a stream called Beaver Creek, emptying into the Arkansas River. It is a mountain stream and its waters are in demand for municipal purposes at Colorado Springs and Pueblo. In order to get control of this water, these cities have bought the ranches in the valley, just to secure the water rights thereon. Some years ago, representatives of these two cities were going up and down the stream, taking options on the ranches. One old fellow, owning probably the best ranch on the stream and an old water right, was surprised to see these representatives pass right by him and take poorer ranches on either side of him. He inquired the cause and was told that he had no water. "But," he protested, "I have water. I have about a foot of the oldest water on this creek. The old decree calls for a foot, and later I sold thirty-five inches, but I have one hundred and nine inches left." The poor fellow had the correct idea of an inch in his mind, and then figured that since an inch was the amount discharged through an inch-square hole, therefore a foot was the amount discharged through a square hole one foot each way under a five-inch pressure, measured from the surface of the water to the top of the hole, and hence he could sell thirty-five inches and still have one hundred and forty-four minus thirty-five, or one hundred and nine inches left.

Another pioneer told me that since a foot meant one cubic foot per second, therefore an inch meant one cubic inch per second, and there surely were 1728 cubic inches in a cubic foot. He had the correct idea of the second foot, but not the right conception of a miner's inch.

Now for the fourth unit, the acre foot. We will define it thus: Cover an acre of surface with water one foot deep and you have an acre foot. This unit is used in large reservoir works and also in determining the duty of water. There are 43,560 cubic feet in an acre foot, and as there are 86,400 seconds in a day, then one second foot running for twenty-four hours, will run approximately two acre feet.

We are now ready to take up the measurement and division of water.

Note—An article will follow in June issue on measurement and division of water for irrigation, by Prof. Edward B. House, author of this article.

VIEWS SHOWING SHIPPING WAREHOUSES OF THE EFFICIENT COLORADO FRUIT GROWERS' ASSOCIATIONS

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FOR making root grafts of the apple, good straight roots the size of a lead pencil should be selected. These may usually be obtained from nurserymen. Scions selected from the new wood of the desired variety are kept in cool earth or sand until the time of year when most of the root work is done. The necessary apparatus consists of a sharp shoe knife, grafting wax and plenty of waxed string. The wax is made as follows: Resin, four parts; beeswax, two parts; beef tallow, one part. Melt the resin first, add the beeswax, and when it is melted add the tallow. Mix well and pour into a pail of cold water. Pull until white, using tallow to prevent sticking to the hands. The string used is a loose cotton thread, about half as heavy as ordinary cord. It is waxed by drawing through a pan of the melted wax, and then wound upon a reel. The scions are cut in six-inch lengths and the roots in four-inch lengths. These are wrapped in damp cloths to prevent drying out and the grafting is begun. The ends which are to be joined are cut slanting and as nearly alike as possible. A tongue is then cut near the center of each cut surface and the scion and root are fitted together, with each tongue in the corresponding groove in the other piece. The success of the operation depends upon the inner bark of both pieces coming in contact on one side at least, for it is here that the union takes place. The parts are then wrapped three or four times around with the waxed cord and the cut surfaces, including the tip of the scion but not the end of the roots, are covered with wax. Next the graft is drawn through fine, clean sand, which covers the wax so that the hands do not become sticky in the future handling. The grafts are then packed tips upward in a box of sand, and kept cool until planted in nursery rows.—Exchange.

ALASKA-YUKON EXPOSITION AT SEATTLE, JUNE 1

BY LLOYD W. McDONALD

IT WAS not very long ago that you would hear some one refer to the Alaska-Yukon-Pacific Exposition as the big show of two years hence. Last year it was next year's exhibition, and right now the people of the Pacific Coast states are pleasureably excited over the fact that the A-Y-P is near at hand. On June first the gates will swing wide open to the world and this temporary city, in which exhibits from every corner of the globe will be gathered, and where people of every nation will assemble, is a realized fact.

So much for Western pride and spirit. Seattle promised a completed exposition and Seattle is now going to show the world the most beautiful exposition ever planned. It will be a fair where the genius of men has combined with nature to produce a combination of architecture and natural beauties that will set the Alaska-Yukon-Pacific Exposition down in history as the dream city of the Pacific.

It will no doubt seem a shame to the thousands of visitors to Seattle this summer that such a thing as exhibiting this exposition all over the world is not possible. It must live in history and be seen to be appreciated. But the Alaska-Yukon-Pacific Exposition will live less than five months as an assembled product; then many of the beautiful buildings —palaces in fact—will disappear more rapidly than they sprung up. The show will be over. Orient and Occident will have had friendly intercourse, friends will say good-bye, but the lesson taught by this great Pacific exposition will have been learned well.

Japan and China will be there shaking hands. The United States government will bring together Alaska, Hawaii and the Philippines, and these three cousins of the Pacific will know one another better after the fair comes to an end. Right at Seattle this summer extremes of temperature will meet, for the Siberian Eskimo will peer strangely at the Igorrote from the China seas. Long after the gates of the exposition are closed commercial intercourse will continue, and this great fair will not only foster the trade of the Pacific but will serve to acquaint the people of the South and East with the resources of the Middle West and Northwest, and more particularly the Pacific Coast.

A glance at the grounds of the exposition at this time will serve to destroy any doubt as to whether the exhibition will be ready. As a matter of fact, the Alaska-Yukon-Pacific Exposition is all ready right now. Nearly every building on the grounds stands complete. The streets are paved with asphalt, the city thoroughfare leading to the main entrance has likewise been paved, and the last of the landscape features have been added.

This will be welcome news to the people of the Pacific Coast, who look upon the Alaska-Yukon-Pacific Exposition as part their own, because they had faith in the undertaking from its very inception, subscribed to the stock, and many have had the pleasure of watching the progress made in building this great show from the day the first timber went into place until the last staff ornament was set in position to grace the main entrance gates and make beautiful the first glimpse the visitor will have of the exposition.

It is now just a question of adding the finishing touches to the exposition. The permanent buildings, to revert to the University of Washington, including the auditorium, fine arts, machinery, forestry, Arctic Brotherhood, Washington State and Women's buildings, are ready and the same may be said of the manufactures, agriculture, mines, fisheries, Oriental, Canada, New York State, Oregon and California buildings, representing nearly every county in the State of Washington, and dozens of other structures for exhibiting purposes, as well as to house amusement features. Uncle Sam has been busy at Seattle for the past month, and the group of United States Government exhibit buildings are now full of exhibits. On the shores of Lake Washington the government has built a life saving station, where daily exhibition drills will be given.

All Seattle is prepared to receive the visitors. Several street car lines lead to the exposition grounds, and additional equipment assures the rapid handling to and from the grounds of passengers during the busy hours of the day. The city is now being decorated, and when the people of Seattle awaken early on the morning of June 1, the first thought in their minds will be that the exposition is open and they will hurry into the city on the early morning cars, to be on hand with a pleasant smile and hearty welcome to the people who will come from far and near to inspect Seattle's crowning enterprise.

SEATTLE, WASHINGTON. WATER FRONT PUGET SOUND. WHERE THE ALASKA-YUKON EXPOSITION OPENS JUNE 1, 1909

THE SOUTHERN OREGON DEMONSTRATION TRAIN

BY A. L. PECK, OREGON AGRICULTURAL COLLEGE, CORVALLIS, OREGON

DURING the week ending March 27 the Southern Pacific Railroad Company, in co-operation with members of the Oregon Agricultural College faculty, conducted a demonstration train through the Rogue River and Umpqua Valleys. The crowds that assembled to inspect the train, which was of a highly specialized nature, representing only horticulture and poultry husbandry, were far larger than ever before attended an attraction of a similar kind. The numbers were greatly in excess of the estimates made by the best informed railroad officials and gave splendid evidence of the efficiency of well organized commercial associations and of the intense interest and spirit of the people at large.

The train, which is admitted to be the most complete of its kind ever run in the United States, was made up of one flat car, one chair car, three long baggage cars, a sleeper for the use of the party, and for part of the way the private car of Superintendent Fields. Very novel and instructive was the flat car, carrying as it did a full sized, ideal colony house and portable yard, well supplied with the necessary furnishings, even to twenty-five or thirty fine Plymouth Rocks. One baggage car was entirely given up to the poultry department, and following it were two cars devoted to horticultural interests, one to fruit growing and one to market gardening. So far as is known, this last named car is the first ever run in the world that was entirely given up to such a highly specialized branch of horticultural work.

Specialization is the watchword of the successful business man of today, whether he be a fruit grower, a stock raiser or a merchant. Keeping pace with this idea, the Oregon Agricultural College fitted out the train with this end in view and sent men into Southern Oregon who were specialists in horticulture and poultry husbandry. Professor C. I. Lewis, in charge of the horticultural exhibits, was assisted by Mr. A. L. Peck, in charge of the market gardening car, and by Mr. R. W. Allen, who had charge of the demonstration work in the fruit growing car. Professor James Dryden, assisted by Mr. G. Lunn, was in charge of the section of the train devoted to the poultry industry.

SOUTHERN PACIFIC DEMONSTRATION TRAIN NEAR ROUND PRAIRIE, OREGON

The interior of the poultry car was well decorated with bunting in the college colors, as were also the other two, and contained everything that would be of interest to the poultry man. Incubators and brooders of different makes, types of trap nests, appliances for feeding, egg cases for shipping, machines for preparing feedstuffs, desirable periodical literature calculated to be of interest and value to the poultry man; all were on exhibition before the crowds that forced their way through the train. Little incubator chicks and still others in brooders created a great deal of interest. Handsome specimens of turkeys, geese, ducks and hens of different breeds were shown, and above them hung others of the same breeds ready for market, showing their good market qualities or the lack of them.

The exhibits in the fruit growing car were in groups and afforded a wealth of information to the man who was willing to take advantage of the opportunity before him. One end was given up entirely to spraying. There a man could see spraying machines of all sizes and prices; dozens of different types of nozzles; the best makes of hose, and types of gasoline engines which are used by large growers. Arranged along the wall were pruning saws, knives, hooks, shears of the most approved types; in short, every implement that could be recommended as giving perfect satisfaction in regard to both effect on the tree and cost of operation.

One exhibit that created a great deal of interest among the progressive growers was that of the frost fighting apparatus. Thermostats of different types were in working order right on the train, and it was shown how a man could sleep until the temperature got down to the danger line, when the alarm would be sounded and the orchardist warned that it was time to light his smudges. Professor C. I. Lewis said that last year $150,000 worth of fruit could have been saved by the proper use of $5,000 worth of fighting apparatus and materials for fuel.

Great stress was laid on the use of cover crops to keep up the fertility of the soil, and charts were hung near the growing samples of vetch, peas, cow-

CROWD IN FRONT OF SOUTHERN PACIFIC DEMONSTRATION TRAIN AT CENTRAL POINT, MIDDLE OF ROGUE RIVER VALLEY, SOUTHERN OREGON

horn turnips, rape, etc., showing their composition and money value per acre. A few good cultivating implements used by growers were shown.

Packing tables, nailing presses, samples of lithographs, papers and all styles of fruit packages were shown. Planting charts showing the different systems of planting and thinning were hung on the walls and created much interest among men just setting out orchards for the first time. A collection of trees from one to three years old, pruned properly and poorly, served to help the man who has been making mistakes and to guide the beginner from the start. Mr. R. W. Allen demonstrated the process of budding and grafting, which proved valuable to those interested. One prominent feature of his work was walnut grafting, in which he explained and illustrated the Payne system, probably the most successful one in use today.

In the second car, given up to market gardening, a very complete collection of Planet Jr. implements was shown, along with fertilizer sowers, commercial fertilizers, and charts giving the quantities per acre for special crops.

Southern Oregon and especially Douglas County is very early and market gardening should be one of the leading industries in that section. Irrigation often pays the gardener an enormous return on the capital invested, and in view of this a complete equipment for irrigating was placed on the car. Cold frames, seeds, seed testers, capillary tubes, drainage tile, insect pests, plant setters and many other things of economic importance to the market gardener were exhibited and proved of interest to many.

Doctor Withycombe, director of the Experiment Station, accompanied the train and addressed the visitors at each station. A few minutes were taken up by the speakers in explaining what would be found in the various cars, and after having their picture taken the crowd was allowed to enter the cars. All along the journey the people were very hospitable and everything was done to make the short time spent in the various towns pass as pleasantly as possible.

After all is said, the train can be declared a success in that it has awakened or increased the interest in these two lines of work and some of the visitors have been brought into closer touch with the college. The direct good that should have been done was lessened to a certain extent because of the fact that the crowds were so large and the time given to each stop so short that many could get little good out of it. It is hoped that the next train, in whatever section it may be run, will remain longer in a place and thus give the farmer a better chance to make the most of his opportunities.

GRANTS PASS, OREGON, SCHOOL CHILDREN VIEWING SOUTHERN PACIFIC RAILROAD DEMONSTRATION TRAIN

SEVENTEENTH ANNUAL IRRIGATION CONGRESS

August 9 to 14, 1909

To the Fruit Growers of the Northwest:

We invite your attention to the fact that the Seventeenth National Irrigation Congress meets in Spokane from August 9 to 14, 1909. These dates were selected as most convenient for those desiring to visit the A-Y-P Exposition at Seattle, the Yellowstone National Park and Alaska, in connection with the Irrigation Congress.

The purpose of this great congress is to further the public interest in the reclamation of arid lands, drainage of swamps, preservation of timber and other natural resources.

Home-building is one of the matters of great interest to this congress. The settlement of the land will result in the creation of new and larger markets, which features should attract commercial and manufacturing interests. The work of this body affects not only the man who puts the water on the ground, but the manufacturer who needs a market and the financier who furnishes the money for the development.

A strong board of control has been organized and has taken hold of this matter with the intention and purpose of making this the greatest congress that has ever been held.

They realize, however, that this cannot be done without the help and hearty co-operation of every organization in our country whose objects and purposes are in sympathy with this vast movement.

Therefore, we welcome any suggestions you would be kind enough to make along these lines. It will be the purpose to make this congress as far-reaching in beneficial effects as possible, and in order to do this it will be necessary to secure as many suggestions and requests for special work as possible.

If there is any special thing which your organization would like to have brought before the attention of the congress we shall be glad to be advised of it at your very earliest convenience. You will readily understand that we shall not be able to adopt every suggestion which may be offered, but we should be glad of the suggestions and shall use them to the very best advantage possible.

If you know of any persons who are specially interested in this work we shall be glad to have you call this meeting to their attention.

We further urge upon you the necessity, advisability and profit of being represented at the congress in as large numbers as possible.

Respectfully yours,

Arthur Hooker,
Secretary Board of Control.

VIEW OF CROWD AT ASHLAND, OREGON, IN FRONT OF THE SOUTHERN PACIFIC DEMONSTRATION TRAIN

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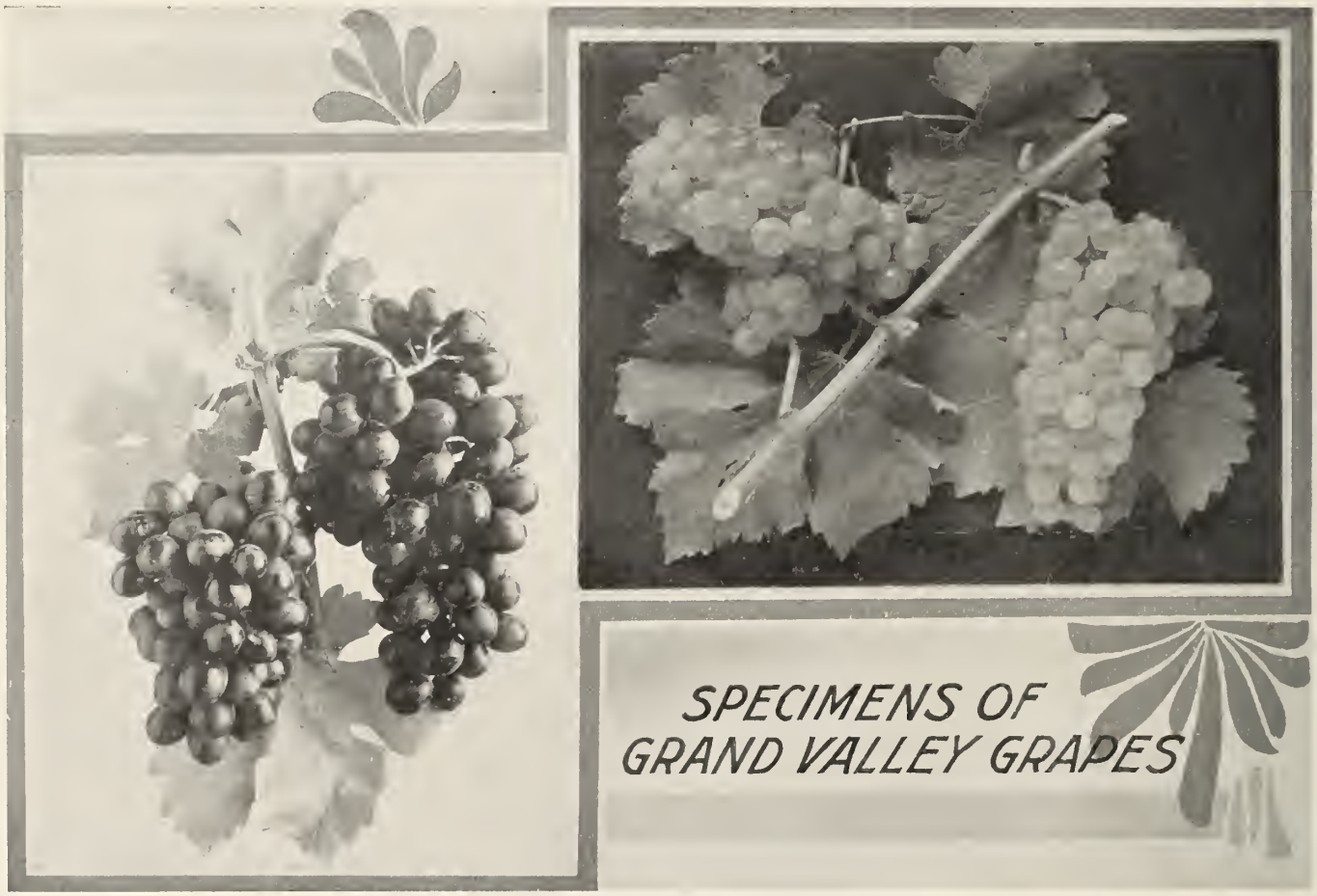
THE fruit growers of White Salmon Valley have organized the White Salmon Valley Fruit Growers' Union. This is the only union of the kind along the line of the North Bank Railroad.

SKETCH OF THE GRAND RIVER VALLEY, COLORADO

THIS valley is located in Western Colorado on the Grand River, the largest river in the state. The valley is forty miles long and has an average width of about six miles. It has about 140,000 acres of land, as fertile as that in the Valley of the Nile, that can be easily irrigated, and the Grand River affords one of the best water supplies in all the irrigated sections. In fact, the water supply is positively certain. With irrigation systems that are as good as the best, the water is applied to the soil when it is needed, and when the thirst of the land has been satisfied and the needs of the crop have been met the water is turned off. The question of moisture is under complete control, and here is where the hand of man gets the best of Nature. The richness of the soil, the favorable climatic conditions and the perfect control of moisture makes this valley one of the most productive sections in the world. About 40,000 acres of land is now under irrigation and the greater portion of the balance will be provided with water within a few years.



GRAPE GROWING IN COLORADO IS QUITE AN IMPORTANT PART OF THE FRUIT INDUSTRY AND INCREASING. ALTHOUGH THE QUANTITY OF GRAPES PRODUCED IS SMALL COMPARED TO OTHER FRUITS, THE QUALITY IS VERY FINE

Irrigation

Farming by irrigation is the oldest method of farming of which we have a record. In the Valleys of the Euphrates and the Nile, where civilization had its birth, there irrigation flourished as at no other time in the world's history. The millions of people who were sustained on a comparatively small area could not have existed except under a system where intensive cultivation and certainty of yield existed. Irrigation made Egypt the granary of the world. It will make of arid America the greatest empire the world has ever seen. Under irrigation there is a certainty of yield, one year being like another, the farmer controlling the moisture just where and when he wants it, so that under the system of intense cultivation the tendency is to smaller acreage and better class of farming, and under proper climatic conditions for strictly high class crops. Nature furnishes the soil and sunshine and the canal furnishes the rain. The farmer has only to apply the water to the soil and the sunshine does the rest. In the fruit belt near Grand Junction there are numbers of quarter sections that are cut into sixteen farms, and the average will in a few years undoubtedly be under twenty acres to the farm.

Different crops require different quantities of water for their proper growth. Grain, alfalfa and beets require much more than fruit or potatoes. There is no secret in irrigation. The farmer who can tell when his crop needs rain can in a few weeks learn to irrigate. Under irrigation the soil is practically inexhaustible. In this section the Grand River, from which we take our supply of water, has its source in the high mountains of the Continental Divide. In the spring the melting snows bring down vast quantities of silt from the higher altitudes, which contain all the elements of fertility, and when spread over the land in the early irrigation, act as an even coating of fertilizer on the land, so that each year the land becomes better and stronger and produces heavier crops. In the vicinity of Grand Junction water for irrigation costs the farmer 64 cents per acre per annum. A cheap insurance policy, is it not, and a happy and profitable privilege against both wet and dry seasons, to be able to order the weather to suit your own convenience? But of more importance is the fact that while he is watering one field he is harvesting his crop in another, and cultivating his crop in another. The Grand Valley Irrigation Company, which waters the land in the vicinity of Grand Junction, has the best water supply and furnishes the cheapest water in the United States.

The Government Irrigation Project

At the present time there are about 40,000 acres of land in cultivation under the irrigation systems put in by private capital. There are two private projects now under contemplation which will

water five and ten thousand acres, respectively. The government is at work through the reclamation service constructing a system which will supply water for 60,000 acres of the best lands in the valley. Of these lands, nearly one-half will be subject to homestead entry under the reclamation act. It is probable, however, that entry cannot be made until a short time before the water will be ready for the lands. The system may be completed by 1911, but it is more probable that the water will not be ready for a crop earlier than 1912. The government pays the cost of constructing the system. The landholders must repay to the government the cost in ten equal annual payments without interest, after which the system will belong to the land owners. The Grand River affords full and reliable water supply for all the lands that can be developed.

GRAND JUNCTION, COLORADO, ELECTRIC LIGHT AND ARTIFICIAL ICE PLANT

Fruits

Experience has demonstrated beyond the shadow of a doubt that the Grand Valley is the most favored spot in the United States for the production of commercial fruit—fruit which brings the best prices at all seasons of the year; fruit the flavor, texture and color of which is unequaled; fruit the keeping quality of which is unexcelled. The ingredients of the soil, and their own peculiar adaptation for this purpose; the climatic conditions, giving the proper temperature throughout the year, and continuous sunshine when needed for ripening and coloring, are conditions that few, if any, other sections in the country are favored with. This, combined with the fact that the water supply is practically controlled by the grower, enabling him to supply the moisture just when needed and in the proper quantity, places fruit growing in this valley on as solid and safe a basis as any other industry in which men engage. The fruit grower here can count upon his crop with more safety than can the corn grower of Iowa, the wheat grower of the Northwest or the cotton grower of the South. He can figure on his future products with almost as much accuracy as can the manufacturer of the East, because in his valley the conditions are more nearly under the control of the producer than they are in any other section where men depend on agricultural pursuits. These facts are based upon an experience extending over a period of years, and the actual experience of men who are engaged personally in the business of fruit growing, and who understand the business in all its details.

The market value of the fruit is another test that shows indisputable superiority, and the test that should weigh most with the man who is seeking a business that brings the most satisfactory remuneration for his outlay of capital and toil. Grand Valley fruit reaches all the leading markets of the United States and commands in all these markets the highest prices, in some instances two and three times as much as the best fruits from other sections. A demand for the Grand Valley fruit is being created in foreign countries, and this demand is growing annually.

Grand Valley is the natural home for the apple, peach, pear, apricot, cherry, prune, plum and quince; the grape, strawberry, raspberry, and in fact for all the small fruits and berries. The industry is yet in its infancy here; there are thousands of acres yet uncultivated. The man who has a good ten-acre fruit ranch in the valley is independent. With a sure crop, a good yield, the best quality grown, a large and growing market and the highest prices, the fruit grower of the Grand Valley has a future more promising than his brother in any other branch of the agricultural industries.

The Town of Grand Junction

Grand Junction is the metropolis of the Western Slope, the largest town between Denver and Pueblo on the east and Salt Lake City on the west, and because of its geographical location and railroad advantages will always be the commercial center for a large and rapidly developing territory. The present population is nearly 11,000, and conservative men who are well informed on the local and outside conditions estimate that in ten years it will reach 25,000.

It has attractions for the homeseeker aside from its commercial importance. With an elevation of 4,600 feet, surrounded by mountains, it has the full benefit of the pure, dry mountain atmosphere, without extremes of temperature,

mild in winter and moderate in summer. It has a splendid public school system, employing at this time fifty-three teachers, covering all grades from the kindergarten to a fully accredited high school course. It has ten churches, all the leading denominations being represented. It has good society, its citizenship being made up of intelligent, sociable, progressive people from the East and Central West. It is becoming noted as a city of beautiful homes. It is a division point on the main line of the Denver & Rio Grande railroad, the terminus of the Denver & Rio Grande narrow gauge line and of the Colorado Midland railroad. It has large railroad shops. A large number of men from the operating department of the railroad have their homes here. The monthly pay roll amounts to $50,000 per month.

Among the industries are a beet sugar factory which actually slices 500 tons of beets per day, a large copper smelter, flour mill, two planing mills, cement block factory, electric plant, gas plant, and numerous other smaller industries. With high class fuel at a very low cost, together with a large and rapidly developing territory, this point offers advantages to many other industries. There is some jobbing done and a field for much more.

Climate

The health restoring properties of the Colorado climate have long been recognized by those who have made the subject a study. No part of the state has a more wholesole climate than the Grand River Valley. The average altitude of this valley is about 4,600 feet. This is not an extreme elevation, but being entirely surrounded by high mountains, it has the advantage of the mountain climate without the disadvantages of the extreme altitudes. A change from lower levels to this valley is beneficial in almost all forms of ills, except in some forms of nervous troubles and cases of extreme heart trouble. The mildness of the climate permits those who need much outdoor life to live and sleep outdoors or in tents. Thousands have been restored to health by this wholesome climate. Fathers have been spared to support their families, mothers to care for their children, and children to bless their parents.

THE MAGNIFICENT SCHOOLS IN GRAND JUNCTION, COLORADO, NOTED FOR ITS SPLENDID EDUCATIONAL SYSTEM

ONE mistake that is made in pruning trees is in removing all the bushy-looking spurs found growing along the main branches in the tops as far as the fourth or fifth season's growth. Most of these spurs, if undisturbed, would give a crop of fruit a year or two sooner than the younger growth. Besides the mistake of destroying the first crop of fruit, the trunk and main branches are deprived of much protection from the sun. If this style of pruning is adopted it would be about as well to head the trees that much higher.—Ex.

The next meeting of the Northwestern Fruit Growers' Association will be held at Tacoma before close of Alaska-Yukon Exposition in Seattle, so that fruit growers can be able to attend both.

"ONE YARD" OF GRAND JUNCTION APPLES.

IS ARSENICAL SPRAYING KILLING OUR FRUIT TREES

BY DR. E. D. BALL, EXPERIMENT STATION, LOGAN, UTAH

DR. HEADDEN, in a recent Colorado bulletin, entitled, "Arsenical Poisoning of Fruit Trees," comes to some very startling conclusions with reference to the effect of continued arsenical spraying on the life of our orchards.

The truth or falsity of these conclusions is a matter of vital importance to the fruit growers of the West, and if the interest taken in a paper on the subject, presented by the writer to the Association of Economic Entomologists at their recent meeting in Baltimore, can be taken as a guide, even the fruit growers of the East are seeking information on the subject.

Briefly stated, the case seems to be as follows: Mr. O. B. Whipple, field horticulturist of the Western Slope of Colorado, in his report for 1906, discusses, under the head of "Root Rots," two diseases which were found to be destroying the apple trees of that region. One of these diseases Mr. Whipple dismisses with this statement: "One form (of root rot) which is proving the least destructive of the two, seems to show no preference for varieties, and confines itself to that part of the tree below the ground." The other condition described by Mr. Whipple at some length, is apparently our old friend long known as "collar rot." He says it "works exclusively on the Ben Davis and Gano," and describes the dead area of bark, the girdling of the trunk, the early ripening of the foliage and other characters well known as characteristic of that condition.

Mr. Whipple suggests that the disease may be infectious and carried by water. He also suggests that it might be due to arsenic collecting about the tree and killing the bark, but seems to doubt that conclusion. Dr. Headden, who had had some previous experience with arsenic injuring vegetation, and had already predicted that there would be a grave danger in spraying with the arsenical compounds, apparently took up the investigation of these troubles the next year with the idea in mind that the trouble was due to the arsenic in the soil. After a number of tests had been made, which will be taken up in detail later, the Doctor came to the following conclusions, which I quote:

"I regret that I can see no other conclusion than that the corroding of the crowns, the killing of the bark, the staining and final destruction of the woody fibers, the early dropping of the leaves presaging the early death of the tree, and its final death a few months later, are caused by arsenical poisoning."

Dr. Headden in this statement is talking about conditions which he states he observed "from near Fruita almost to Palisade and in the neighborhood of Delta," and which he believes already involves the principal apple growing sections of Colorado, and of which he says, "It is also true that literally hundreds of trees have already died or are sick."

If Dr. Headden is right in this conclusion as to the cause of the death of those "hundreds of trees," he has given us a warning which, if heeded in time, will prevent a course being pursued by the fruit growers of the West which would have caused millions of dollars of loss in ruined orchards.

If, on the other hand, he is mistaken in his conclusions, the publication is most unfortunate, as it will cause a decided reaction against a highly successful method of spraying and bring consequential financial loss only equalled by that which we suffered some years

STREET SCENE IN GRAND JUNCTION, COLORADO

FORTY-ACRE ORCHARD OF A. E. MILLS, AUSTIN, COLORADO. JONATHAN AND ROME BEAUTIES

ago through the unwarranted statements of Woodworth with reference to the purity of spraying compounds.

Whether the Doctor is right or wrong in his general conclusions, there are a good many important facts brought out in this bulletin that it will be well for the fruit growers generally to become familiar with, and which will serve to explain a number of occurrences in our own state which have been hitherto inexplainable.

It will be only fair to Dr. Headden to state the reasons he gives for his conclusions. The Doctor in investigating the region in which this dying occurred found a tree, part of which had died very suddenly, and near it the stump of one that had died previously. On inquiry he found that the owner of the orchard had at one time made arsenite of lime under the tree of which only the stump remained, and had doubtless spilled the soluble arsenite of soda, causing its death. In the second case, they had attempted to be more careful and had poured the excess arsenite of soda into the irrigating ditch from which a part of the roots of the second tree secured its water. The roots of this tree next to the ditch were found to be dead, and black streaks of dead bark extended up the trunk of the tree from the roots clear into the branches, and the branches on that side, according to the owner, had turned brown and died within a few days after the soluble arsenite had been poured into the ditch. Dr. Headden made a chemical examination of the roots, trunk and branches, and found arsenite present in every case. He then examined parts of fourteen other trees, all of which showed the symptoms that Mr. Whipple included under "root rots," and in every case found traces of arsenic in the affected parts. He then examined the soil under the trees that had been sprayed and found arsenic present in considerable quantities, but in an insoluble form. From these facts he draws the conclusion quoted above, that arsenic is killing our fruit trees. It might be well to state in this connection, that Dr. Headden is a well-known and thoroughly reliable chemist and there is no reason to doubt the absolute accuracy of any of his chemical findings. Dr. Headden is not, however, a horticulturist or a plant pathologist and has taken little interest in orcharding, and his conclusion that the trees he found dying or dead in other orchards were affected in the same way as the ones known to have been killed by the soluble arsenite, is open to serious question. He places a great deal of weight on the similarity of appearance in the bark and the discoloration of the heart wood, as illustrated by his figures, but as far as anyone can discover from the statements of the bulletin, he made no examination of the apparently healthy trees in these same orchards, nor of dead trees in orchards that had not been treated with arsenical sprays. In fact, nowhere in the bulletin can we find a statement that would lead us to believe that he knows of any cases of trees dying where no arsenical sprays have been used. This appears to us to be the weakest point in Dr. Headden's chain of evidence, and is due, no doubt, to the fact that Dr. Headden has little knowledge of orchard conditions.

A PRETTY BIT OF HORTICULTURAL HALL, ALASKA-YUKON EXPOSITION. OPENS AT SEATTLE JUNE 1, 1909

INTERIOR VIEW OF HORTICULTURAL CAR, SOUTHERN PACIFIC RAILROAD DEMONSTRATION TRAIN THROUGH SOUTHERN OREGON, MARCH, 1909

It might be well to bear in mind also, that Mr. Carpenter, who formerly lived in Grand Valley, states that the waters of the Grand River carry considerable amounts of arsenic, which they receive from the mines and smelters farther up the stream, and that traces of arsenic can be found in all soils around Fruita. The entire district investigated by Dr. Headden is watered by irrigation canals taken from this stream, and as he does not mention testing irrigation water, this may have been the source of the soluble arsenic found in the trees instead of the insoluble compounds used in spraying.

Alkaline Ground Water Killing Trees

In the writer's investigations of conditions in the orchards of Utah during the past six years he has found a number of sections in the state where considerable loss has been experienced by conditions apparently identical with the two described by Mr. Whipple and Dr. Headden.

The condition which is apparently the first one mentioned by Mr. Whipple, in which there is no preference for varieties and in which there is no marked ring around the base of the tree, has

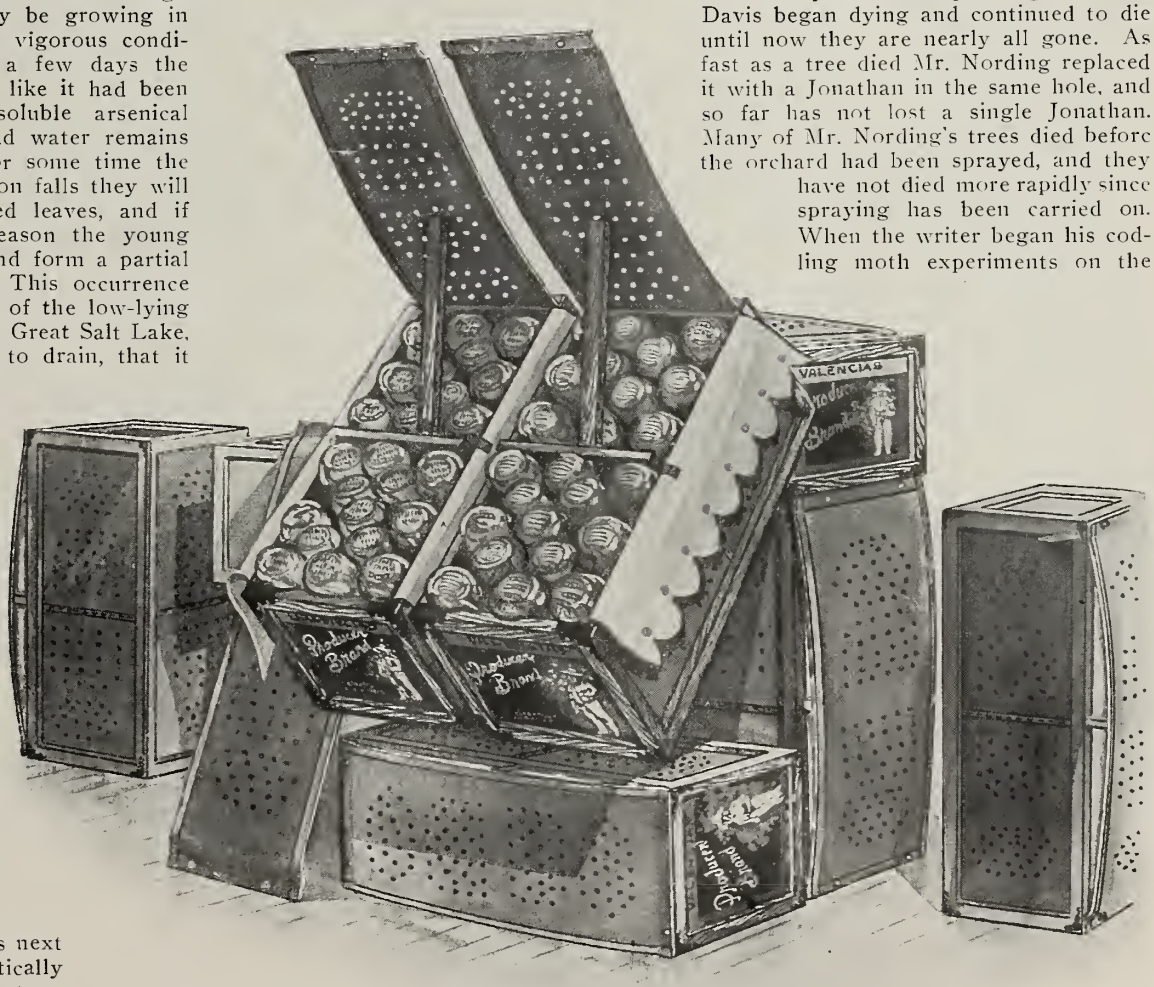
destroyed hundreds of acres of orchards in Utah, and in every case where this has been investigated it has been found that the ground water has been very close to the surface and contained a large perecentage of alkali. In one section, where the greatest loss has occurred, a survey of the region showing the depth to the ground water has been made, and in every case the worst affected orchards are located in the region where the water is closest to the surface, as shown by this map. In other cases, trees are dying from alkali where the ground water is not normally close to the surface, but where at certain seasons of the year, irrigation on the higher lands brings it up temporarily.

Where the ground water is constantly close to the surface, young trees grow with great vigor until the roots reach this standing water, then they gradually become sickly and yellow, the leaves ripen prematurely, and as the trouble progresses the bark becomes mottled and discolored with brown areas and the trees gradually die off. In cases where ground water fluctuates through irrigation, the tree may be growing in apparently healthy and vigorous condition one day, and in a few days the entire foliage will look like it had been sprayed with some soluble arsenical solution. If the ground water remains close to the surface for some time the trees will die. If it soon falls they will often drop their burned leaves, and if not too late in the season the young shoots will push out and form a partial green covering again. This occurrence is so common in some of the low-lying districts adjacent to the Great Salt Lake, where it is impossible to drain, that it occasions but little comment, every one understanding the conditions that produce it. An example witnessed by the writer on the Central Utah Experiment Station was of great interest. An orchard of several acres was planted just under an irrigated bench. Soon after the irrigation water had been applied above it would seep out on the slopes of the bench and render the upper part of the orchard impassable for man or beast. When first seen, the first three rows of trees next to the bench were practically all dying or dead, except on a small knoll of rising ground which was high enough to escape, and the injury was extending to the next few rows adjoining. A deep trench was dug, so as to intercept the seepage water, with the result that the land below the ditch was hard and firm, while that above was impassable as before. The trees below this ditch rapidly recovered their vigor and it appeared that the orchard was saved. A cave occurred, however, in this ditch near one end, damming up the water for a small distance, when it immediately appeared on the surface in the orchard below the ditch, and within three or four days the adjacent trees were brown and scorched as if they had been swept by fire. The ditch was cleaned and repaired and the water soon subsided from around these trees and all but one of them recovered and put forth a new crop of leaves, the one next to the break being the only one that died. This condition is found in isolated situations throughout the Western country, where the drainage is poor and the soils are alkaline. These conditions exist throughout the lower and heavier lands between Fruita and Palisade, where in certain places, not only the fruit trees have been killed, as cited by Dr. Headden, but much of the farm land has also been ruined for sugar beets and other crops and is now abandoned. Some of these orchards had never been sprayed at all, and of course none of the farm land had received any arsenical treatment.

A careful investigation has been made since the appearance of Dr. Headden's bulletin, and many instances have been found in which orchards have died from these conditions without ever having received an arsenical spray of any kind, and in many other cases the dying has been limited to the lower part of an orchard directly affected by the ground water, so it appears absolutely impossible to identify this condition with any effect of arsenical spraying.

Collar Rot Killing Trees

The second condition mentioned by Mr. Whipple, and which is commonly recognized throughout the United States as "collar rot," apparently confines itself very largely to the Ben Davis apple, with the Gano as a second choice. In three or four places in Utah this disease has been alarmingly prevalent. The first orchard in which it was found by the writer, blonged to Mr. Lars Nording of Hyrum. Mr. Nording planted Ben Davis and Jonathans alternately. Within two or three years after planting the Ben Davis began dying and continued to die until now they are nearly all gone. As fast as a tree died Mr. Nording replaced it with a Jonathan in the same hole, and so far has not lost a single Jonathan. Many of Mr. Nording's trees died before the orchard had been sprayed, and they have not died more rapidly since spraying has been carried on. When the writer began his codling moth experiments on the



THE NEW WOOD FIBER PULP BOARD BOX FOR SHIPMENT OF ORANGES

Strictly waterproof, beautiful, practical and up-to-date lemon and orange box. In the shipment of twenty cars of oranges from Redlands, California, to New York, Boston, Philadelphia and other Eastern points, not one box was broken. The Pacific Packers Supply Company, of Redlands, California, have now in successful operation there a box factory installed with machinery that will construct pulp boxes. Boxes can be made any color at slight expense. The wood fiber box, being the strongest and most durable package made, most profitable to shippers and railroads, will undoubtedly become the universal package in the near future. Makes complete egg case or delivery box. Eliminates cooperage; durable; can't split or break. Beautiful display package. Our object will be to put out the finest package, the best grade, the most attractive packing, shipped from California. You can increase your business by using this box.
Producers Marketing Association, H. D. Foy, G. E. A., Omaha, Nebraska

orchard of Thomas Smart of Logan, this orchard was chosen because it had not been sprayed previously, and yet at that time trees were found dead and dying from "collar rot." These trees were in one small section of the orchard, and others in the same section have died since the spraying was carried on, but it has not extended to other parts of the orchard. At Morgan, which is situated in a high mountain valley, a large number of Ben Davis trees were planted a few years ago, and before any of these orchards began bearing, and therefore before spraying had commenced, numerous complaints were made of the loss of trees through disease. In the Central Utah Experiment Station the orchard mentioned previously, contained two acres of Ben Davis on the lower end, and in this end a number of the trees had already died from "collar rot" when the arsenical sprays were first applied. The writer is fairly familiar with most of the orchard regions of both Colorado and Utah, and has visited many of the sections of the Northwest, and in no case has he observed that there has been any more loss from these causes in orchards that were cared for and sprayed than in neglected ones, which should, if Dr. Headden's conclusions are correct, be immune from these troubles.

It seems, therefore, safe to conclude that arsenical poisoning is not the underlying cause of either one of the above mentioned conditions. In the Colorado bulletin a third condition is mentioned as occurring in a few cases, in which the sap oozes from the trees and forms a gummy or crystalline mass. This condition the writer has never seen, and therefore is not in a position to discuss.

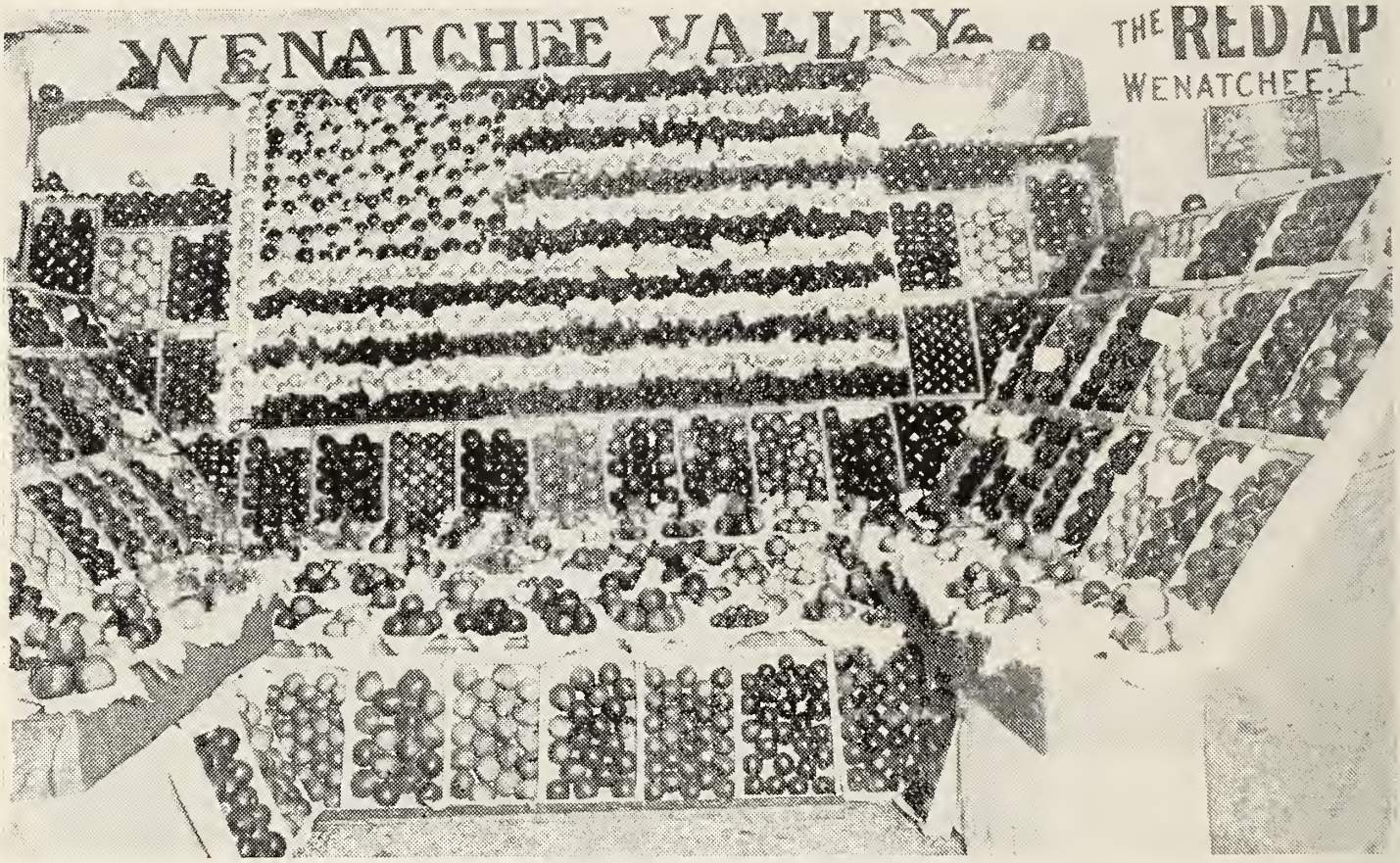
It might also be well to state that the conclusions of the Colorado bulletin are apparently based on few observations in the field, the greater amount of work having been done in the laboratory, hundreds of miles from the spot where the damage occurred; that no experiments were carried on on fruit trees, the only attempt to test the effect of arsenic being on greenhouse plants, and that the only trees known to have died from arsenical poisoning were the two that were killed by the soluble arsenite of soda, which we know would have killed them immediately if it had been sprayed on the foliage.

Where the Bulletin Is Valuable

This bulletin, if rightly interpreted, will be of great value to a great and growing industry. This interpretation, however, will be one of very guarded warning against intemperate and excessive as well as needless use of arsenicals. It will only serve to strengthen the position of those who are urging the use of the new method of spraying first worked out and published by the Utah Experiment Station, and later confirmed by other Western workers. In these experiments it has been abundantly proven that one single driving spray, if correctly applied at the right time, will do more to protect an orchard for the entire season than any number of sprayings as ordinarily applied.

Dr. Headden shows in his bulletin that even a small portion of alkali, or even common salt alone, in the water, will serve to render some of the arsenic of spraying solutions soluble, which serves to explain a number of things that have happened in this state in the past. In one case an orchardist sprayed his entire orchard with paris green and practically ruined the crop by burning, while his neighbors used the same brand of poison without serious injury. This particular orchardist, however, undoubtedly used water taken from a well heavily charged with alkali (as all the well water in that region is known to be strongly alkaline) which no doubt rendered his paris green soluble and caused it to burn the foliage, while the neighbors used water from the irrigation ditches and in that case experienced little difficulty. In another case an orchardist sprayed a young orchard with lead arsenate of an approved brand and burned the foliage from the trees and even killed the weeds and sugar beets beneath. This was his first spraying and it is very probable that if the matter could be investigated it would be found that he had used a barrel which had previously contained salt or brine and that a sufficient quantity remained in the barrel to free the arsenic.

This bulletin will also serve as a warning to those contemplating planting trees in strongly alkaline soil, even where the ground water is not close enough to the surface to be considered dangerous, for if the alkali is capable of freeing the arsenic it would not be very long before



WENATCHEE, WASHINGTON, COMMERCIAL CLUB EXHIBIT. FIRST DISTRICT PRIZE, NATIONAL APPLE SHOW, SPOKANE

the soil would be so impregnated that it would not only kill the trees but render the ground unfit for any other crop.

The matter is one that calls for careful and exhaustive investigation, and for cautious and guarded statements of any kind until results of these investigations are known. Hasty and ill-advised statements with reference to the use of arsenicals has already done a great injury in the intermountain region by retarding the development of the fruit industry—our most profitable crop.

Conclusions

That the conditions described by Dr. Headden and attributed to the effects of arsenical spraying, occur over widely distributed areas and have killed thousands of trees on which no arsenic has ever been used, and that therefore arsenical poisoning cannot be the primary cause of this condition.

That the only trees positively known to have died of arsenical poisoning were the two to which a soluble arsenite was applied, a compound which no one has ever used for spraying purposes.

That the entire subject of arsenical poisoning is a matter for careful and exhaustive investigation, and that any statements preceding that investigation should be of the most guarded nature.

That there is danger in the use of even slightly alkaline waters in the application of spraying materials, and that there is probability of danger from excessive spraying on strongly alkaline soils.

That it has been abundantly proved that a single spray by the new method is much more valuable than the excessive spraying as formerly practiced, thus obviating the greater part of the possible difficulty.

That those who are using the driving spray or contemplate using it, may do so with the assurance that they are using the least dangerous method possible, if danger there should be, and that the best and most productive orchards in the state are the ones that have been the longest sprayed.

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THE culture of dwarf apple trees and the intensive method of planting standards under the dwarfing principle cannot be successfully undertaken by the careless or shiftless fruit grower. Only the specialist, the man who has indomitable will and purpose, who will not fail to carry out every requirement of good culture, who will study the condition of his trees as closely as a physician studies his patient alike in health and in sickness, will be justified in venturing upon the more skillful line of tree culture. This will apply with equal force in the future to standard tree culture.—Rural World.

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THE Wenatchee Valley Fruit Growers' Association reports that the past season has been the most successful for some years and has caused much favorable comment from fruit growers outside the valley.

GREENACRES, WASHINGTON, EXHIBIT AT NATIONAL APPLE SHOW, HELD AT SPOKANE, WASHINGTON, DECEMBER, 1908

PRESIDENT'S ADDRESS AT UTAH ANNUAL MEETING

BY JAMES G. DUFFIN

SINCE the last annual meeting of the State Horticultural Society we have passed through a harvest, one of the most abundant in the history of our country. And though some of the fruit growers may not have received the prices they anticipated in the early part of the season, there has been much to encourage them for the season's work. On every hand we see evidences of better methods in the planting, cultivation, pruning and spraying of orchards and in the picking and packing of fruit. The general tendency has been one of improvement and progress. We see in this condition the fruits of work that has been done for a number of years by the different state organizations and schools, state and county societies, and by individuals, to develop the horticultural interests of the state. Looking at the situation from every point of view, we see nothing to discourage but everything to encourage the further development of the fruit industry of the state.

Up to the year 1897, when the State Board of Horticulture was appointed by Governor Heber M. Wells, under the law creating that board, there had not been shipped out of the state in solid car lots to exceed ten cars of fresh fruit. During the year 1908 there were shipped more than twelve hundred cars, in addition to the vast quantities sent out by express. By careful calculation, taking the number of acres of trees now in bearing and the number of acres planted but not in bearing, it is estimated there will be shipped out of the state within the next few years, at least five thousand cars of fruit annually. When to these estimates is added the product of the large acreage that will be planted every year, one can begin to form an idea of the wonderful future of the fruit industry of our state.

Our exhibit at the Irrigation Congress at Albuquerque, New Mexico, scored another triumph, carrying off the great sweepstakes trophy, the Hearst Cup. The exhibit made at the Apple Congress at Council Bluffs, Iowa, in December, though gotten up when material was scarce, was well received, and did much to bring before the fruit men of the country the horticultural possibilities of the state. We have thought that some means should be provided for securing suitable fruits while they are abundant in the state, to be kept in storage for late fall and winter exhibits at the fruit congresses and other gatherings of those engaged in the growing or distribution of fruit. If this were done and the exhibits made, it would do a vast amount of good in bringing before the fruit dealers of the country the excellence of the products of our orchards.

WINTER BANANA APPLE TREE IN S. H. SAWYER'S ORCHARD
GREENACRES, SPOKANE VALLEY, WASHINGTON

The management of the State Fair Association has been generous in its recognition of the horticultural interests of the state. In making up the premium lists for the horticultural department the State Board of Horticulture and the State Horticultural Society have been consulted and their recommendations adopted.

In making exhibits at the State Fair we earnestly recommend that while artistic displays of fruit should be provided for, the commercial end of fruit growing be emphasized. Commercial exhibits should be put up in commercial packages, packed according to market requirements, suitable prizes being offered to encourage this form of exhibiting. That the commercial package and methods of packing the different varieties of fruit might be more carefully studied by visitors to the Fair, a section of Horticultural Hall should be set off for this class of exhibits.

The question is often asked: "In setting out a commercial orchard what varieties should I plant?" The answer to this is: "The commercial varieties that do best in your particular district." There is one peach, the Elberta, that does well in nearly all peach belts. This is not true of apples and cherries, for we find by observation that some varieties of these fruits do very much better in some districts in the same state than in others; hence the importance of making a careful study of local conditions affecting the different varieties of these fruits before planting the orchard.

There are three distinct divisions of the fruit business—production, packing and distribution or marketing. To get the best results from his orchard the grower must understand the best methods of handling it and of packing his fruit, and while he may not be enabled to attend to the business of placing his fruit on the market, he should understand something of the methods by which his fruit is placed in the hands of the consumer. He should also keep in touch with the crop conditions of the country, also the conditions of the markets. If this were done, the grower would be in a position to protect himself and give intelligent support to those who are marketing his products for him.

There should be farmers' organizations in every county and district of the state. At the meetings of these organizations, conditions affecting the welfare of the farmer should be discussed, and methods for improvement adopted. One branch of these organizations is for the marketing of the farmers' product. Where organizations are effected for this purpose, it should be borne in mind that the purpose of the organization is to place the product on the market so as to procure the market price, not for the purpose of trying to get exorbitant prices from the dealers. Every business lives by its profits, not by its losses. Every dealer is as much entitled to a reasonable profit in handling the farmer's product as the farmer is in producing it. Every house that closes its doors by reason of paying prices, during times of excessive competition, beyond what the market will stand for, lessens that much the opportunity of the grower to reach

the consumer. If these basic principles are kept in view, we believe farmers' organizations will be more successful than some of them have been. There is another thing that contributes to the success of these organizations that should not be lightly passed over. Competent men, interested in the development of the state, should be employed to handle the business of the associations.

It is estimated that $125,000,000 is lost annually in the United States by waste of manure. Not one load of this precious material in this state should be allowed to go to waste, where by reasonable expense it can be gotten into the orchard. It is but a matter of a few years when the unfed orchard will become unprofitable. Not only by the use of stable manure, but by other methods of fertilizing the soil, should the fruit grower keep up the fertility of his orchard. Experiments conducted by the New Jersey Experiment Station for a period covering ten years to test the effect of manure or commercial fertilizers, and without manure or commercial fertilizers upon the productivity of peach trees, gave the following results:

Average yield per acre each year with manure, 194.7 baskets.

Average yield per acre with commercial fertilizers, 183.4 baskets.

Average yield per acre without manure or fertilizers, 60.5 baskets.

In the mining camps, large cities, and at some other points in the state along the lines of the railroads there are annually vast quantities of manure that go to waste. We have thought that the railroads could well afford to furnish free cars to the farmers who would take the manure from these places where it is going to waste and place it upon their farms. Think of the enormous tonnage this would give the railroads through increased productiveness of the farms and orchards.

Damage to crops in the United States annually by insect pests is estimated at the stupendous sum of $700,000,000. A large amount of this loss is borne by the fruit industry. When we consider that a heavy percentage of the loss can be prevented by judicious spraying, we see the importance of following up the splendid work of Professor Ball along this line. Care should be exercised in buying spraying material, for in the strength of the material used, as well as by the skilful handling of the spray pump, depends the success in handling the orchard pests. That spray material shall be of the strength advertised by the manufacturer is of such importance that it is made the subject of legislation by Congress.

As to the commercial value of thorough spraying, a case in point will illustrate. In Western New York during the past season apples from orchards that were thoroughly sprayed were contracted for at $2.00 and $2.25 per barrel, while there was little demand for the fruit from imperfectly sprayed orchards, and where taken at all brought only $1.25 to $1.50 per barrel.

One of the problems to be solved in this state is how to turn to profit that which goes to waste in the orchard. One cannot but be impressed with the vast amount of fruit and other products of the farm that are allowed to go to waste, and which by proper handling might be turned to a profit. In California until recently the pits of apricots were thrown away. Now they bring from $10 to $30 per ton and are used in the manufacture of prussic acid.

SIX-YEAR-OLD STAYMAN WINESAP APPLE TREE, 1908, WENATCHEE VALLEY, WASHINGTON

With A. J. Linville, orchardist and real estate man, in the foreground. Showing the prolific yield of fruit in the Wenatchee Valley. The photograph was taken by G. Gagnon. His artistic photographic work is attracting widespread notice.

We need more canneries, jelly and jam factories, evaporators, vinegar factories and such other industries that will turn into commercial products the waste from the farm.

Almost from the beginning of time there has been raised the cry of overproduction. Is there danger of overproduction of fruit? We answer yes—there is always danger of an overproduction of inferior fruit. But who has ever seen any market overstocked with first-class products of any kind? It is an aphorism that there is always room at the top. Fruit raising follows the natural law. But there is a significant fact given us by the United States Department of Agriculture for the decade ending with 1907. In 1895 there were produced in the United States 60,540,000 barrels of apples, in 1896 69,070,000 barrels, and from these dates there has been a gradual decrease in apple production, notwithstanding the fact that the West has been increasing in production. In 1906 there were produced 36,130,000 and in 1907 25,000,000 barrels. This decrease does not come from the West; clearly, then, the decrease must come from the great apple-producing states of the East.

A part of the mind energy of the fruit grower should be given to a study of how to make his home more pleasant, his surroundings more sanitary and beautiful. He is entitled to and he can have modern conveniences in his farm home if he will. As I ride through the fruit districts of the state and I see the many beautiful homes that are being built, I feel to say in my heart: "God bless the husband and father that is giving to his faithful wife and devoted children these comforts."

In closing I feel that I am expressing the sentiments of the fruit growers of the state when I say: "We deeply appreciate the work of the Agricultural College, the B. Y. University, and other schools that are taking up the work of agriculture and horticulture, the Deseret Farmer and the press of the state for the support given us, the State Board of Horticulture, with that grand old horticulturist, Thomas Judd, at its head, to its genial secretary, J. Edward Taylor, and the many individuals who have given freely of their time and means to help those who till the soil to get better returns from their labors.

A LIVING FROM YOUR ORCHARD BEFORE BEARING

BY W. F. VAPLON, FORT COLLINS, COLORADO

IT IS customary for the orchardist, while his orchard is coming into bearing, to plant small fruits, vegetables, etc., between the rows of trees.

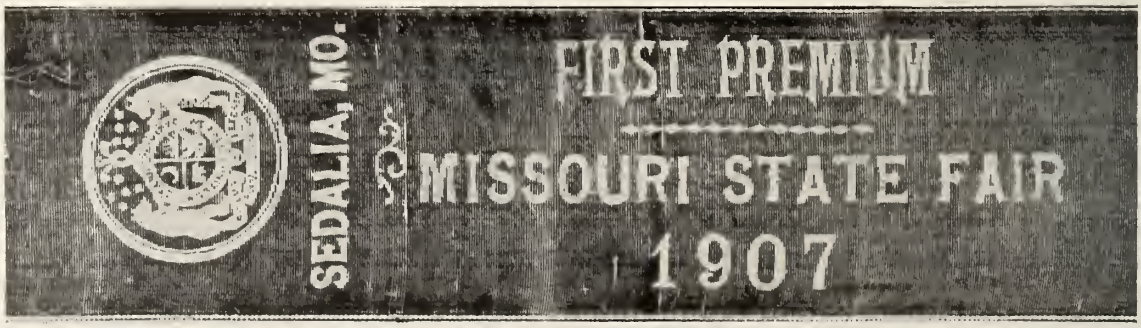
In the fall of 1907 the Horticultural Department of the New York State College of Agriculture invited all apple growing state in the Union to send specimens to their first annual exhibit, held November 20 to 23, 1907. There were about a thousand plates, five apples to a plate, exhibited. The Grand Valley, Colorado, sent fifteen plates and won first place, as shown by the accompanying Blue Ribbon.

This is usually done, however, more from necessity than choice, as a man is often obliged to make a living, or part of a living, from his land while waiting for his fruit crop, and four or five years is a long time to wait without returns, so the orchard is used for these crops. Whether this is detrimental to the trees or not I am not prepared to say. Of course the growing crops take much fertility and moisture from the soil, and in dry years this must rob the trees of some needed food, and although they make a good growth it seems reasonable to suppose that they might do better if allowed to draw all the nourishment in the ground to themselves; but whether the custom or method is good or bad it will probably be done as long as orchards are planted, and my object in writing this letter is not to criticize, but to suggest a crop for the growing orchard that will, with the same care and skill given other crops, produce more per acre than any other crop, return a greater profit considering the amount invested; a crop that gives a steadier income than any other, with the exception, perhaps, of the dairy cow, that is perhaps the surest crop of any; that not only does not take from the fertility of the soil, but rather adds to it; a crop that will not hurt, but instead benefits the trees, that old standby mortgage-lifter, the old hen. Hardly a locality in the West produces enough eggs and poultry for its own use; Colorado annually sends out three million dollars for poultry products, and at the same time has ideal conditions for producing these products in greatest abundance. Oregon may be doing the same thing and also has conditions similar to Colorado, soil, climate, sunshine making it possible to raise poultry at less cost than can many Eastern states. No matter if Oregon is supplying her home markets, neighboring states are clamoring for eggs and she can sell all she can produce at big enough prices to make a big profit no matter how much feed may cost to buy or produce. A hen can be fed at from 90 cents to $1.25 per year, depending upon whether you raise or buy the feed; properly housed, fed and cared for she will lay 120 eggs a year; individual hens lay from 150 eggs upward, but ten dozen each from a flock is a good average. Eggs command from fifteen cents to forty cents a dozen, averaging twenty-five, so your hen is producing in eggs at market prices $2.50 a year. Two hundred hens can be profitably kept on an acre, and I know of no crop that will produce so much in an orchard and at the same time benefit the orchard so much.

Of course you cannot get results such as these in the haphazard way most farmers have of keeping hens, but a good, healthy, vigorous hen, given a variety of food and lots of it, exercise and a comfortable, clean house will net her keeper $2.00 per year. I think I am very conservative in my figures, as many are doing this and some much better, and an American always feels that he can do as well or better than the other fellow. Don't forget cleanliness. Give bulky foods such as vegetables, alfalfa, leaves. Don't overfeed by allowing your fowls to get their grain without work; feed liberally 365 days in the year, but allow them to work for it. Scatter the grain in summer broadcast in the loose earth in the orchard, in straw in the winter, so inducing exercise. Chicks for market can be profitably raised, as broilers command, in most Western markets, a very high price and our American breeds reach broiler size at two months at a small cost. A hen seems to me the biggest little thing on earth, and I know of no two crops so well suited to each other as the hen and tree fruit.

PROFESSOR E. B. HOUSE
Irrigation and engineering expert of the Colorado Experiment Station, Fort Collins, Colorado, whose splendid article on irrigation appears in this issue

Yellowstone Valley, Montana, is fast becoming developed into orchards. The McIntosh Red is the apple best adapted to the Montana climate and many acres will be planted the coming season.



In the fall of 1907 the Grand Junction (Colorado) Chamber of Commerce sent an exhibit of fruits to the Missouri State Fair at Sedalia, just to advertise the products of the valley, without any thought of competing for a prize. The fruits attracted a great deal of attention and the suggestion was made to the man in charge, by the managers of the Fair, that the exhibit be entered. This was done, and the above Blue Ribbon was awarded to this exhibit, the first time that the State of Missouri has ever given recognition to an outside exhibit.

SHORT COURSE IDEA AS PRACTISED IN COLORADO

BY PROFESSOR WENDELL PADDOCK, EXPERIMENT STATION, FORT COLLINS, COLORADO

IN A recent issue of "Better Fruit" mention is made of the winter courses at the agricultural colleges. Possibly your readers will be interested in knowing about the short courses that are being held by the Colorado Agricultural College.

A winter, or short course, for stockmen was inaugurated several years ago at the college. The course has now been broadened, but it has been successful from the start. Such a course has its limitations, however, particularly in so large a state as but a comparatively few farmers can afford the expenses of the trip, especially from the remote parts of the state. Accordingly the idea was conceived of taking the college to the people by holding short courses at points where there is sufficient interest to make it justifiable. Our first attempt to take the college to the people was three years ago, when a course for fruit growers was held at Delta. At the same time a course in domestic science was given for the women of the county. These two courses were largely attended and the results were so satisfactory that a campaign of college extension along these lines was inaugurated by our Superintendent of Farmers' Institutes.

Not only does the itinerant short course reach a far greater number of people, but the saving in expense to the farmer alone is sufficient to justify the movement. For instance, if all of the people who attended the first courses at Delta had been compelled to make the trip to Fort Collins it would have meant an expense of at least $7,000. As it was, their expenses were nominal, and the cost to the college did not exceed $400.

Now that the work has been systematized the expenses have been reduced, but in order to help defray the expenses a guarantee of $200 is required of the community where the course is held. At first thought it might seem desirable that the course be free, but no doubt a small fee is desirable. And moreover, our appropriations for this work are limited, consequently the $200 is necessary if the work is to be given at all.

Twenty-two short courses have been held so far this winter in various sections of the state. The subjects handled are, of course, suited to the community. In horticultural localities such subjects as the following are given: The orchard plant, tillage, fertilizers and shade crops, orchard planting and pruning, fruit packing, protection from frost, frost injuries and secondary bloom, plant diseases, varieties and soil adaptation. Orchard insects are discussed by Professors Gillette and Weldon. This work is begun by describing insect life, after which the various pests are taken up in order. In addition to purely horticultural topics various subjects are given, depending upon the locality, such as dairying, by O. C. Gregg of Minnesota; livestock topics in general, by Professor Cottrell; crop rotation, by Professor P. K. Blinn; irrigation problems, by Professor House, and occasional lectures on poultry and bee keeping by specialists in these lines.

Domestic science courses under the direction of Professor Raush, are often given during the same week and are proving to be as popular as the courses which are designed primarily for men.

The short course of one week's duration has many advantages over the old one and the two-day institute. One of the principal advantages being that it gives the speaker time to discuss the principles which underlie his subject. He thus has an opportunity to develop the fundamental, whereas with shorter meetings the talks must usually be devoted to the giving of purely popular information.

Photograph by Professor E. B. House of the Colorado Experimental Station

SHORT COURSE CLASS IN HORTICULTURE AT HOTCHKISS, COLORADO

Held under the auspices of the Colorado Experiment Station, showing interest manifested by Colorado orchardists. Professor Wendell Paddock on left hand front row; C. R. Greisen, representing "Better Fruit," third man from left in lower row, attending these meetings for "Better Fruit"

◈ ◈ ◈

If you save your money you're a grouch;
If you spend it you're a loafer;
If you get it you're a grafter;
If you don't get it you're a bum.
So what the hell's the use!

◈ ◈ ◈

MILLER & WAGERS,
Packers and Shippers of California Fruits.
Healdsburg, Cal., February 16, 1909.

Better Fruit Publishing Company:

Gentlemen—We have just finished reading the last number of "Better Fruit," and must say that we cannot hold in any longer, but must express ourselves or "bust." To sum it up in a few words, we consider that "Better Fruit" is a live wire leading from a live dynamo (the editor) to a live motor (the fruit grower). Publish this if your native modesty can stand the shock.

Now to business. We are in the midst of the Sonoma County Gravenstein section and consider our possibilities for progress fully equal to those of Hood River on late varieties.

We wish to interest every one of our customers in an organized effort for better fruit. The first step is education. The best educator we have seen is "Better Fruit" magazine.

Come over and help us and incidentally yourselves. Send us, if possible, ten or more sample copies, at our expense, and advise us at the earliest possible date of the best possible special subscription rate which you can make for clubs of ten or twenty names. We don't want any rake-off but want the grower to get it.

Awaiting your prompt reply, we remain, yours very truly,

Miller & Wagers,
Per Derral D. Wagers.

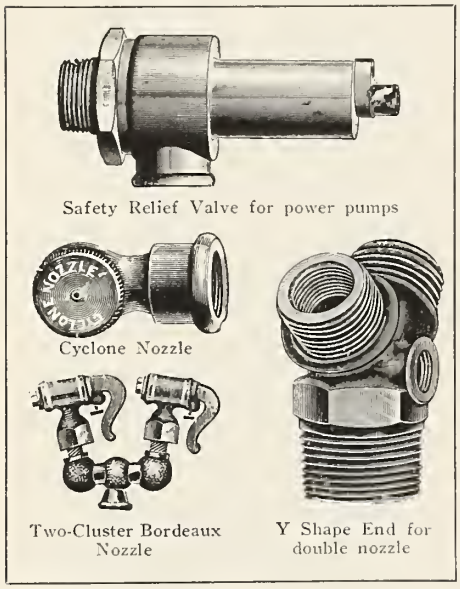
IRRIGATED ORCHARD, SPOKANE VALLEY, WASHINGTON

COMMERCIAL PROBLEM OF THE FRUIT GROWER

ADDRESS OF F. W. POWER AT THE MEETING OF THE STATE HORTICULTURAL SOCIETY IN PORTLAND, DECEMBER, 1908

THE subject assigned me for this occasion has so many phases that to even touch lightly upon all of them would exceed the time allotted to this paper. I can merely outline a few of the more important problems, without attempting to solve the best methods of accomplishing the results.

When we consider the millions of fruit and nut trees being planted each season, it is a matter of wonderment what



Safety Relief Valve for power pumps

Cyclone Nozzle

Two-Cluster Bordeaux Nozzle

Y Shape End for double nozzle

becomes of them or of their products. A ride through many sections of the country will show that poor methods of planting and cultivating account for the loss of many of the trees planted, but a large number are well cared for and become good bearing orchards. New methods and markets must be built up to handle the products.

In order to secure the best prices we must raise better fruit. One of the first requisites is good, clean nursery stock, true to name. Good orchards possibly can be grown from inferior trees, but it costs time and money to do so, and where trees untrue to name are planted they are often nearly a total loss until worked over to a commercial variety. Some nurserymen think more of doing the largest or most profitable business than of placing only first-class stock on the market. Do not go to the other extreme of saying that there are no honest nurserymen, merely because you have been swindled by one. There are just as honest and conscientious men in the nursery business as in any other. A second necessity is good soil, adapted to the variety planted and in the proper location. Before planting an orchard, select a location with the proper climate and soil to produce what you desire to grow. Much of your future success will depend upon your location. For apples, such valleys as Hood River, Rogue River, Yakima, Wenatchee and certain parts of the Willamette Valley might be mentioned; for Tokay grapes or other European varieties, Southern Oregon, several places along the Columbia, both at The Dalles and along the north bank in the vicinity of Lewiston. For walnuts, the Willamette Valley; for apricots, in the north a still more limited area is available; and for almonds, possibly the only location north of California, where they can be grown every year without danger of frost, is on the north bank of the Columbia in the Goodnoe section. Many other sections in this great Northwest could be mentioned as locations where certain fruits grow to perfection, but the list would be too long.

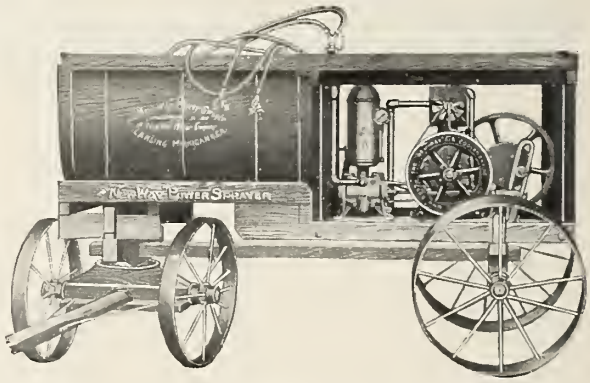
After the trees have been planted in the proper location, much care and attention must be given to cultivation, spraying, pruning and to raise choice fruit, much time and care must be given to thinning the fruit. This latter is practiced too little by most growers, but the prices received by those who do proves that it is a good investment.

After the fruit is raised there is still much to do to secure the highest prices. The fruit must be carefully picked and in many cases wiped before it is packed. Probably no one thing enters more into the commercial growing of fruit than proper packing. Greater care must be exercised in this, if we wish the highest prices. There is no question that much of the success of the Hood River growers lies in the excellence of their packing. More fruit growers' unions are needed to educate the average grower and help to secure a more uniform pack, so that the purchaser can tell by the label what is inside. You will find that for fancy trade, a perfect pack, true to label, will win out in the end and pay big returns for all the extra care and expense.

In order to reach distant markets in the future, we will need better and quicker transportation. This can partly be accomplished by improving refrigerator cars, and new improved methods of chilling the fruit before shipping. This, I think, is one of the great problems for perishable fruit, and will be a great aid toward reaching more distant markets. Good results from chilling before shipment have already been obtained by orange growers. Electric lines out into the orchard districts, where fruit can be loaded without hauling to town, avoids much bruising of the fruit, besides being a saving of hauling expenses.

The time is not far distant when we must look for new markets both at home and in foreign countries, to take care of our fast increasing output. Salem is now shipping carloads of dried prunes to Europe. Several sections are already shipping apples to Europe and Asia, but these markets must be enlarged or improved. This work can probably be best accomplished by the government and by fruit growers' associations, as there are few individual growers who can afford the expense of looking up such markets.

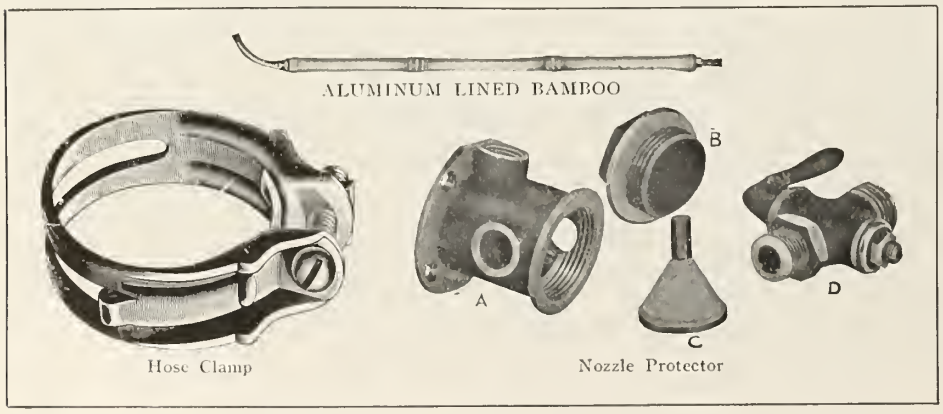
Right here, a word of caution is necessary, when exporting fruit for the first time to a new market. No inferior or poorly packed fruit must be sent, as this will ruin the demand for future shipments, and it will take time and expense to overcome the prejudice. Not only can the market be injured in this way, but also by excessive prices for the fruit before a demand has been created among consumers. Better sell nearly at cost at first, gradually raising the prices as demand increases, than to kill the market by high prices. This is a further reason why these shipments can be handled to better advantage by an association than by an individual grower, who could hardly afford to sacrifice his profits for the future benefit of others.



NEW WAY HIGH PRESSURE POWER SPRAYER
With air-cooled engine and mixture tank attached. This sprayer will deliver the spray mixture at 200 pounds pressure under the most trying conditions. The pressure of 200 pounds does not allow any spray to alight in globular form. John Deere Plow Company, Northwestern agents, Portland, Oregon.

We have locations in the Northwest with suitable soil and climate for all varieties of fruit except the tropical varieties.

The tide of immigration is towards the Northwest, and for the next few years we will see more new settlers than at any time in the past. Will the horticulturists be ready to take advantage of it and make this not only the greatest orchard section in the world, but the one most famous for high-grade fruits and for prices obtained therefor? This can only be done by united efforts, not only by the growers in each section, but also by the co-operation of the different fruit growing sections, all working for the same result.



ALUMINUM LINED BAMBOO

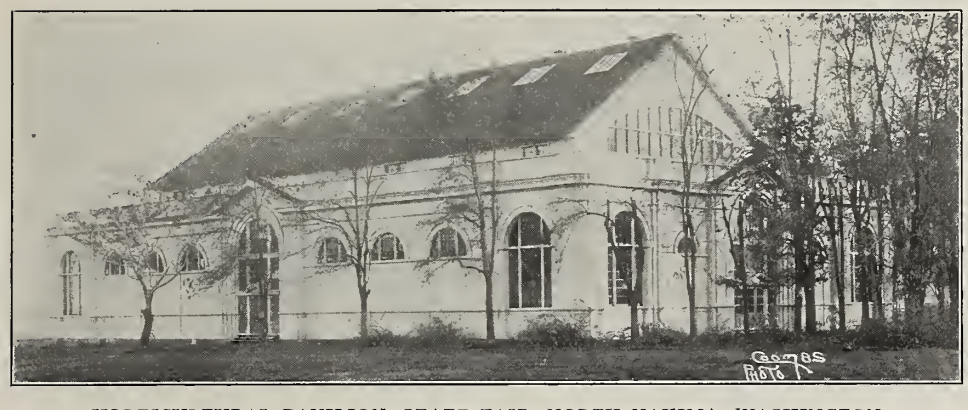
Hose Clamp

Nozzle Protector

CONDITIONS AFFECTING PRICES OF FRUIT IN 1908

ADDRESS BY JOHN E. MOORE AT UTAH HORTICULTURAL SOCIETY MEETING, SALT LAKE CITY

THIS subject has possibly been the most general topic of conversation, discussion and publication for the past four or five months among fruit growers, shippers, jobbers and retailers of any one subject pertaining to this great industry, and 1908 will go down in trade annals as the year of extremes—a year of poverty and plenty, a year that tried the dealers' souls as well as the growers, a year that proved the wisdom of organization over and over again. There seems to be one cause that all are agreed upon, that being the "financial stringency," and there is no question but what this was the chief among the disturbing elements. We must look to the laboring man for the consumption of the greater part of the fruits raised in this country.



HORTICULTURAL PAVILION, STATE FAIR, NORTH YAKIMA, WASHINGTON

With the tightening of the money market industries were affected to such an extent that the laboring man's one source of revenue was instantly cut off, thousands were out of work and therefore it became necessary to economize to the fullest extent and to confine themselves to bare necessities and those of the cheaper and poorer quality.

When the season first opened on staple fruits, jobbers loaded up at fairly good prices, but on account of little demand, retailers bought sparingly, with the result that jobbers were compelled to unload their first receipts at a loss and refused to make further purchases unless prices were reduced. Gradually these necessary reductions were continued until returns were hardly paying transportation charges, and still the demand was insufficient to consume the supply. This resulted in congestion in the majority of the principal markets and many cars were condemned by the health inspectors and dumped. I am glad to state, however, that all cars shipped by the association of which I am the manager, were sold at prices not only sufficient to pay transportation charges, but at prices which would net the grower a margin for profit.

Never before in my twelve years' experience in the fruit business have I been so impressed with the necessity of proper marketing and distributing methods for the protection of the man who grows the fruit. This protection would also include the jobber. We are in an age of revolution and evolution, and the unorganized and unsystematized mode of doing business of the past must give way to more modern methods.

I am fully convinced that the numerous partially organized and unsystematized institutions which are attempting to assist the grower by agreeing to load their fruit and ship it somewhere, are a great detriment to the business and the growers. Last season, in my efforts to secure reasonable prices, I was confronted on every hand by the statement from jobbers with whom I was attempting to deal, that they were being well supplied with fruit on a consignment basis, and as long as consignments could be secured they would not buy. We sold on either a f. o. b. or delivered basis, eliminating entirely consignments. Now, with a proper distribution of the fruits, there is no reason why each and every car cannot be sold at the market price, or put on the auction where it will receive a square deal and the grower paid all that his fruit is worth. Could the distribution be properly controlled and consignments eliminated, glutted markets would be rare. There are always, in nearly every market, dealers who will encourage consignments to their markets, when if they had to put up the money for the fruit they would be very careful that an over supply did not obtain. This condition can be controlled by the growers, and if every fruit growing locality would create and properly conduct an association on a square and modern basis, I fully believe that returns could be very materially increased.

This would require an outlay of some expense to the growers, but at the same time would really be an investment. If you knew that by purchasing a certain kind of machine for twenty-five dollars you could, by proper handling, decrease your orchard expenses one hundred dollars a year, would you hesitate to make the purchase? Well, an association is a machine, each grower a part of that machine, and if kept in good running condition and handled by a man who knows how, it will produce results; therefore I claim that improper marketing was one of the greatest factors affecting the price of fruit in 1908.

During the past year the larger fruit producing sections were confronted with the proposition of marketing the largest crop ever produced. Georgia, that immense producer of peaches, was compelled to handle, with her crude and unsystematized methods, the largest crop in her history, with the result that out of the five thousand carloads, about two thousand were shipped to one market, and the results to the growers on account of poor distribution, were disastrous. California produced nearly twice as many cars of fruit as were shipped in 1907, and many other fruit districts were ill prepared to properly handle the quantity produced.

The deciduous fruit season which has just closed will go down in history as the heaviest ever known, yet, it is my opinion that the quantity was not the prime cause of low prices, as I believe under normal conditions and proper distribution, with careful attention to high quality, an equal production could be placed in the hands of consumers at

FIRST PRIZE PREMIUM EXHIBIT OF APPLES AND BY-PRODUCTS BY FREMONT WOOD BOISE, IDAHO, PRESIDENT OF STATE HORTICULTURAL SOCIETY

reasonably good prices and profit to the growers.

With increased production, more care must be given to the quality and packing. Every car of inferior fruit carelessly packed and placed on the market will tend to decrease the value of the fancy stock, and to such an extent that growers who are anxious to get something out of inferior fruit will be the losers considerably more than the profits realized from such sales.

While the past year has been very unsatisfactory in many respects, the experience gained cannot help but be beneficial to those who have been observing, and should tend to create an endeavor on our part to eliminate as far as possible those conditions which are liable to result in a repetition of these past experiences and use our best efforts and increased knowledge to place the growing and marketing of our excellent fruits on a basis of absolute protection and profit to the great army of people who are building up an industry of immense importance to this western country, where the Almighty has so bountifully provided the necessary elements for the production of the finest fruits known, and I wish to congratulate those enterprising husbandmen who are putting forth every possible effort to improve the results of their worthy vocation. And now, my friends, although prices have been low the past season and results not as profitable as you expected, you have no reason to become discouraged. Just look back and remember for several previous years prices have been profitable, and no man, whether he be a merchant, manufacturer, farmer, stock grower, or what not, expects every year to be a profitable one. Also, if not financially, you have gained otherwise; that is, you have become better organized. Also, you have tried a different method of marketing your fruit, and whether the experience of the past season has been satisfactory or not, you have at least had the experience.

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APPELUFY TO APPLESHIPR

The apple season have "came" again once more;
We're told the crop is *far* better than that the year before;
That worms are scarce and fruit will grade *all* Fancy No. 1;
Quality and size so good, that packing will be orchard run.

The dealer beams with pleasure to get such glorious news.
No scab, no bitter rot, no fungus to give him a case of "blues."
As he opens up a barrel, or takes the cover off the box,
He tells the trade, no use to "dig," this season is a paradox.

We want to tell you what *we* want, and just how we are fixed.
This market wants RED fruit and a pack that is not mixed;
Black Twig, Arkansas Black, Jonathan, Gano, Baldwin and Grimes Golden,
Pippins, Winesap, Bell Flower and Louis Erb's old Uncle Ben.

New Orleans is growing fast, and we belong to the "Booster's" Club;
Two apples must each eat a day, be he Democrat or Repub.
We have engaged cold storage space for fifty cars or more.
So let *us* know at once how much *you* may decide to store.

Get in touch with *us* at once, and tell us what you've got,
And also say how much of each, as our trade requires a lot.
Careful handling, grade and pack, with good fruit, *always* sells the best.
So here's to a good season for our friends, north, east, south and west.

New Orleans G. H. Appel.

LADD & TILTON BANK

ESTABLISHED 1859 Oldest Bank on the Pacific Coast

PORTLAND, OREGON

Capital Fully Paid $1,000,000
Surplus and Undivided Profits $500,000

Officers:

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Edward Cookingham, *Vice President* — J. W. Ladd, *Assistant Cashier*
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Accounts of banks, firms, corporations and individuals solicited. Travelers' checks for sale and drafts issued available in all countries of Europe.

LESLIE BUTLER, President
J. N. TEAL, Vice President
TRUMAN BUTLER, Cashier

Established 1900
Incorporated 1905

Butler Banking Company

HOOD RIVER, OREGON

Capital Fully Paid $50,000 Surplus and Profits are $20,000

We give special attention to GOOD FARM LOANS

If you have money to loan we will find you good Real Estate security or if you want to borrow we can place your application in good hands and we make no charge for this service

CAPITAL STOCK $100,000 SURPLUS $20,000

FIRST NATIONAL BANK

HOOD RIVER, OREGON

F. S. STANLEY, *President*
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E. O. BLANCHAR, *Cashier*
V. C. BROCK, *Assistant Cashier*

ASSETS OVER $325,000

Savings Bank in connection

CHAS. G. PRATT, *President* — J. H. OSBORNE, *Vice President* — WILSON FIKE
R. W. PRATT, *Cashier* — M. M. HILL — C. H. STRANAHAN

Hood River Banking & Trust Co.

HOOD RIVER, OREGON

We own and occupy the finest equipped and most modern bank in Hood River County

A General Banking and Trust Business Transacted

Safe Deposit Boxes Interest paid on Time and Savings Deposits
Make Our Bank Your Headquarters When in Hood River

Correspondence Solicited Your Patronage Solicited

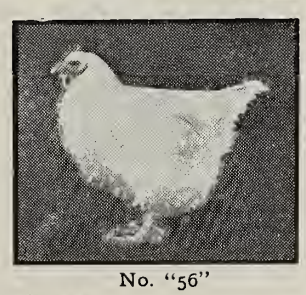
Cupid Flour

Has same standing in the Flour Trade that Hood River Apples have in the Fruit Trade. *Made by*

HOOD RIVER MILLING CO.

Laying Quality

is what counts



No. "56"

The hen that lays (in Winter) is the hen that pays. Our

WHITE PLYMOUTH ROCKS

are vigorous, hardy, active, quick maturing winter layers. Get EGGS FOR HATCHING now from line bred stock

15 Eggs, $2.00 35 Eggs, $4.00 100 Eggs, $8.00

W. E. VAPLON, FORT COLLINS, COLORADO

W. F. LARAWAY

DOCTOR OF OPHTHALMOLOGY

EYES TESTED LENSES GROUND

Over 30 Years' Experience

TELESCOPES, FIELD GLASSES MAGNIFIERS TO EXAMINE SCALE

HOOD RIVER, OREGON AND GLENWOOD, IOWA

Stop–Look–Listen

HOOD, WASHINGTON

A new town, located sixty miles east of Portland, Oregon, on Columbia River, overlooking the famous Hood River Valley, Oregon. Here can be grown the small fruit, the big red apples, nuts and grasses, without irrigation. The ideal country for the man with small means. Transportation facilities are by rail and boat. Land values from $40 to $150 per acre. Information can be had by writing Secretary

Hood Development Association

P. O. Underwood, Skamania County, Washington

The

Hall Drug Store

Eastman Kodaks and Supplies
Souvenirs, Postcards, Stationery
Pyrography Materials

Hood River's Largest and Best Drug Store

A. I. HALL DISAGREES WITH DR. HEADDEN ON THE ARSENICAL POISONING OF FRUIT TREES

I WAS interested in your paper in January "Better Fruit" on arsenical poisoning. I am very confident the writer of that article is mistaken in his diagnosis of the trouble with the trees in the territory mentioned and that poison has nothing whatever to do with the dead and dying trees in the Western territory.

This trouble is caused by cold weather, colder than usual. You will find in nearly every case that the trees that show this trouble are on the lowest parts of the orchard, where air drainage is poorest.

Thousands and thousands of trees were killed and injured during the winter of 1896-97 in New England. That winter was colder than any we have had in the last fifty years. The effect on apple trees was exactly as described in the article in your magazine. I have a fifty-acre orchard where about forty trees were killed and a good many more injured to some extent.

THE BEAN IMPROVED BARREL SPRAY

The Bean Spray Pump Company, San Jose, California, are the manufacturers of spray pumps which certainly must be good. This fact is evidenced by their popularity with the fruit grower.

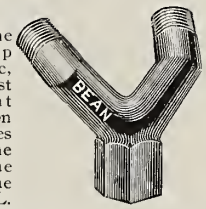
Some photographs were taken of some of the trees in my orchard by Profesor Brooks of our experiment station, and those photographs will duplicate your cuts perfectly.

Now, there had never been any arsenate of lead or other poison on these trees, as they had never bloomed up to that season, so poison could not possibly have done the damage. The analysis showing poison in the diseased bark of the trees was caused by spraying after the bark became diseased and the bark and wood then absorbed the poison.

There can be no question about the trouble there being identical with ours here, as every peculiarity described compares perfectly with our winter killing. The trees that did not die by the middle of the second (last) season will, I think, recover, but a great many still show the trouble described in the article, at the crown.

Too bad to spoil your "scoop," but it is also too bad to make a scare on the use of arsenate of lead or other poison to control the codling moth. If you would like photographs of trees that look exactly like your cuts I can furnish them. Yours truly,

Rochester, N. H. A. I. HALL.



MELANDER, Y

Manufactured by the Bean Spray Pump Company, San Jose, California. The best nozzle attachment made, for the reason that the angle enables a man handling the spray rod to direct the spray directly into the calyx. Prof. A. L. Melander, horticulturist of the Pullman Agricultural College, Washington, is the originator of this attachment and deserves the thanks of every fruit grower in the country.

◈ ◈ ◈

Almost the whole world knows of Hood River as a place that produces the best fruits, and all of Hood River Valley should know, and could know, that there is one place in Hood River, under the firm name of R. B. Bragg & Co., that the people can depend on getting the most reliable dry goods, clothing, shoes and groceries at the most reasonable prices that are possible; try it.

◈ ◈ ◈

A GREAT BARGAIN

One hundred and sixty acres in the Mosier district, 7 acres in full bearing apple orchard; 18 acres in 2, 3 and 4-year old apple trees, all best varieties; loganberries, grapes, peaches, pear, cherries, etc., for home use; 6 acres ready for trees, 10 acres nearly cleared; 140 acres first-class apple land; water for irrigation. Small house and barn, woodshed, winter cellar. All indications for large crop of apples this year. Lies well for subdividing. The whole 160 acres can be bought for $12,000, or 40 acres with improvements and bearing orchard for $8,500. Here is your golden opportunity. See us about this today. We specialize on the best properties in the Hood River district.

J. H. HEILBRONNER & CO.
The Reliable Dealers
Davidson Building, Hood River, Oregon

S. E. Bartmess

UNDERTAKER AND LICENSED EMBALMER

For Oregon and Washington

Furniture, Rugs, Carpets and Building Material

Hood River, Oregon

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

BETTER FRUIT

HOOD RIVER, OREGON

OFFICIAL ORGAN OF
THE NORTHWEST FRUIT GROWERS' ASSOCIATION

A MONTHLY ILLUSTRATED MAGAZINE
PUBLISHED IN THE INTEREST OF UP-TO-DATE
FRUIT GROWING AND MARKETING

ALL COMMUNICATIONS SHOULD BE ADDRESSED AND
REMITTANCES MADE PAYABLE TO

BETTER FRUIT PUBLISHING COMPANY

E. H. SHEPARD — EDITOR AND PUBLISHER
C. R. GREISEN — TRAVELING REPRESENTATIVE

SUBSCRIPTION PRICE $1.00 PER YEAR
IN ADVANCE IN UNITED STATES AND CANADA

FOREIGN SUBSCRIPTIONS, *Including Postage*, $1.50
ADVERTISING RATES ON APPLICATION

Entered as second-class matter December 27, 1906, at the post office at Hood River, Oregon, under act of Congress of March 3, 1879.

THE MAGNITUDE OF "BETTER FRUIT."—We were surprised, as much as you will be, when during a few moment of leisure, which doesn't occur very often, we sat down and figured the number of miles that have been covered by the representatives of "Better Fruit," and found it to be 25,230 miles since December 1. In other words, the representatives of "Better Fruit" have traveled in the last four months 25,230 miles. This is once around the world, with 230 miles on the second lap. This is but one of the many heavy expenses connected with building up a paper like "Better Fruit." This expense, including railway fares, hotel bills and incidentals, has been about $400 per month.

"Better Fruit" begins at Hood River, and when our edition is mailed out copies go to every state in the Union, to England, Germany, France, Italy, Turkey, China, Korea, the Philippines, Australia, and the Hawaiian Islands, encircling the world. In other words, in less than three years "Better Fruit" has built up a circulation that goes clear around the world and reaches practically every foreign country.

The last edition, the April issue, of "Better Fruit" consisted of 10,120 copies. To print this took 6,000 pounds of high grade calendered book paper, the regular price of which to the trade is nine cents. We get a small cash discount, making a net cost of over $500 for the paper alone on which this edition was printed.

"Better Fruit" is now recognized as the most influential fruit growers' paper published in the world. There is a reason. We quote from a letter received from Mr. W. H. Burke, of the R. M. Kellogg Company, the biggest strawberry plant nursery in the world, as follows: "I want to say that yours is the proper journalistic spirit. Orange Judd once said to a friend of mine that when he tried to make money out of the newspaper business he lost money, but when he turned his whole thought to the making of a good paper, without regard to whether it paid or not, he began making money rapidly. The idea being that when one becomes so disinterested in his paper as to work for the good of the public irrespective of pecuniary results, the public becomes responsive to that spirit. I thoroughly believe that to be true." This is just exactly what the editor and publisher of "Better Fruit" has been doing. It has been our aim, our desire and our pride to publish the best fruit growers' paper in the world, regardless of expense. Beginning with the first number of "Better Fruit," we have tried to live up to that aim to the best of our ability. When the income was not sufficient we advanced more money. It is very gratifying indeed to finally see that such work has been appreciated by the public, and we can say truthfully to our friends and fellow fruit men that "Better Fruit" is on a sound financial basis and we are therefore in a position to justify ourselves in making a promise to our readers that they will continue to find "Better Fruit" just as good as it has been, and it is our hope and endeavor to make it "Better Fruit" in every issue.

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ARTISTIC PHOTOGRAPHS OF FRUIT.—Recently we received a package of photographs of orchard fruit scenes in Wenatchee Valley. We reproduced one of these, a bunch of Moorpark apricots, on the cover page of the issue of "Better Fruit" for November. In this edition we publish another, a view of a Winesap apple tree in Wenatchee Valley. In March we made a visit to the splendid Wenatchee Valley and had the pleasure of meeting Mr. G. Gagnon, who kindly showed us his splendid collection of fruit and orchard scenes. In our experience as publishers we have seen a great many pictures, but in this line Mr. Gagnon carries off the honors. He was born in France and has made a special study of photographic work all his life, and, being a true Frenchman, he has the artistic touch, and his aim is always to see how well and beautifully the work can be done, regardless of time, pains and expense. Withal he is a modest fellow, a gentleman, and deserving of splendid opportunity. If he gets it, or can create it for himself, he will become one of the greatest photographers in America.

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THE LAFEAN BILL.—We doubt very much if the present Congress, on account of being so fully occupied with the tariff, will find time to give the Lafean bill, which has been introduced as a substitute for the Porter bill, providing standard sizes for apple packages, serious consideration this year. Every fruit grower whom we have interviewed in the Northwest personally hopes not. Every fruit grower in the Northwest territory whom we have interviewed is opposed to this bill, and in the last four

The last splendid opportunity for clubbing rates on "Better Fruit."

Clubs of four or more will be taken at 50 cents each until June 1. As long as the April issue lasts every member of one of these clubs will get a copy of this Annual Spray Number. The best spraying edition ever produced by any fruit growers' paper in the world.

Things we are Agents for

KNOX HATS
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The PARIS FAIR

Hood River's Largest and Best Store

DRY GOODS
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We are offering some extra specials in our Clothing Department. Ask to see them

Try a pair of American Lady $3 & $3.50 Shoes or American Gentlemen $3.50 & $4

OLDEST LIVERY COMPANY IN THE VALLEY

TRANSFER & LIVERY CO.

Special Attention to Commercial Men, Camping & Fishing Parties

TELEPHONE MAIN 131

HOOD RIVER, OREGON

A Trip to the Coast

Is incomplete without a ride on the

Mt. Hood Railroad

By Mountain Streams, Apple Orchards Virgin Forests and Snow Capped Peaks

Connects with O. R. & N. at Hood River, Oregon

J. GRANGER & CO.

LINCOLN, NEBRASKA

Wholesale Fruit Merchants

Largest receivers and distributers of Western apples, strawberries, raspberries and blackberries in Nebraska. Send us your shipments. We will get you the highest market prices and remit promptly.

Correspondence Cheerfully Answered

References: Corn Exchange National Bank, Chicago; Chatham National Bank, New York City; First National Bank, Lincoln, Nebraska; Richey & Gilbert Company, Toppenish, Washington; Yakima County Horticultural Union, North Yakima, Washington

Do You Know Us?

We have been in the WHOLESALE FRUIT business in Seattle for seventeen years, and are doing business with customers from all over this Western country. Write us today. Our market is the leading one in this country.

Gordon & Company

805-7 Western Avenue, Seattle, Wash.

months we have been in nearly every prominent fruit section of the Northwest and have not found a single individual in favor of it. We do not want the East to understand that we are opposed to a good bill. We hope to have one that will give universal satisfaction at the next Congress. We are willing and glad to work with the East with this object in view. We believe the proper method to pursue will be to call a meeting of the Eastern fruit dealers and representatives and the fruit growers from the different sections of the entire country for the purpose of conference. We believe if this is done that we can all agree and frame up a bill that will be universally satisfactory. If the Eastern dealers will do this they will find the Northwest working with them, but if, on the contrary, they go to work and frame up a bill without consulting the Northwest, as they did with both the Porter and Lafean bills, they will find the Northwest fighting them as we have fought the Porter bill and as we are fighting the Lafean bill.

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SOUTHERN PACIFIC DEMONSTRATION TRAIN.—Through the kindness of Mr. C. A. Malhouef, district manager for the Southern Pacific, we had the pleasure of accompanying the Southern Pacific demonstration train through Southern Oregon. It consisted of seven cars, wonderful and complete in every detail. During the five days' trip something like thirty thousand people passed through these cars. The

Stranahan & Clark

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Office Supplies Stationery

Ledgers, Journals, Time Books
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Souvenir Postals *Picture Frames*

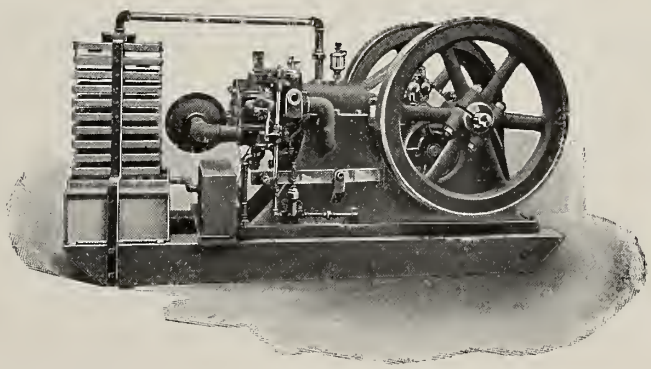
IRRIGATORS—YOUR ATTENTION

THE ALAMO is the best for you *The price is right*

We have exhibited the Alamo engines at several of the local fairs. At the recent State Fair held in Salem we took with the Alamo engines all the prizes, which were as follows:

First prize on easiest starting engine.
First prize on best portable engine.
First prize on best deep well pumping outfit.
First prize on best centrifugal pumping outfit (irrigation).
First prize on best electric lighting outfit.
First prize on best gasoline engine exhibition.

These awards were only made after actual demonstration of the engines, and all other standard makes of engines were represented. The awards were all duplicated at Pendleton and Walla Walla.



The Alamo engine has been selected by the State University at Eugene, and also by the Oregon Agricultural College at Corvallis, as the best engine adapted to demonstrate the latest and most approved principles of gas engine practice to the students. Our 3-h.p. Alamo Victor vertical electric lighting outfit was selected by the Southern Pacific Company to light the demonstration train which toured the Willamette Valley last fall under the direction of the Agricultural College, and these people were so well pleased with the Alamo engine that it was again selected by them to light the demonstration train which recently toured Southern Oregon. The Westinghouse Electric Company and the Northern Electric Company, which as you know are the two largest manufacturers of electrical goods in America, have both adopted the Alamo gasoline engine, and now recommend them and illustrate them in their bulletins. A complete stock of engines, together with a full line of extra parts, is always available at Portland. If you will inform us concerning the exact use for which you wish the engine, we will be pleased to furnish you gratis what information we can concerning the necessary horsepower. We have had a great deal of experience in making installations of all sizes, and no doubt can be of some assistance to you.

Send for free illustrated catalogue in three colors and get prices on our special offers

BEEMAN-WOODWARD CO.

71 FRONT STREET PORTLAND, OREGON

people of the Northwest are rapidly awakening to their opportunities. The railways understand the possibilities and realize the importance of doing everything in their power to develop the country. It is a matter of good business judgment on their part, because the better the country is developed the bigger will the railway business be. The professors in the agricultural colleges always accompany such trains for the purpose of demonstrating better methods of farm and orchard work. Their aim is to improve conditions. Through the combined efforts of railways and agricultural colleges in the East the corn yield has been increased fifty per cent. This is just what our railroads and colleges in the Northwest are endeavoring to do in this district today. They are endeavoring to increase the profit per acre for every farmer fifty per cent, and consequently both the railroads and the professors of agricultural colleges are entitled to a great deal of credit for the work they are doing.

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ARSENICAL POISONING OF TREES.—In the January edition of "Better Fruit" we published an article by Doctor Headden on "Arsenical Poisoning of Trees." In this issue is an article by Doctor Ball, director of the Experimental Station at Logan, Utah, disagreeing with Doctor Headden. Doctor Ball does not believe that apple trees are being killed by arsenical poisoning, and sets forth his views in a very able manner in an article that should be read by every fruit grower who sprays. Doctor Ball is a very efficient and able horticulturist and a very practical man. He was the first to advocate the methods used for spraying for the codling moth, as are now universally used, throughout the Northwest territory in particular.

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DON'T WAIT TILL THE SUN SHINES.

"Now is the time to order seeds," said President Johnson of the Portland Seed Company to a representative of "Better Fruit." "Don't wait till the sun shines. Stocks are at their best at this moment. Orders can be filled quicker and there is no need for putting it off till the sun comes out and gives you the planting fever. You might as well have your seeds when you want them, as to want them right away and then be unable to get them without a day or two delay. Everyone who hasn't a seed catalogue should write for it right away. Everyone who has should send in an order right now. Ordering seeds early means more satisfaction, better planting and better results. Don't procrastinate. Do it now."

THE North Central Washington Development League, comprising the counties of Chelan, Douglas, Okanogan and Lincoln, held a meeting March 20 at Wenatchee for the purpose of getting together and exploiting the splendid diversified interests of that section. The object of the league will be to work in harmony, distribute literature and tell in a very effective way of what they have got and something about the magnificent opportunities existing in that section that are now awaiting development. The delegates were a magnificent set of representative men, enthusiastic and sincere, and great results will certainly follow from their united action.

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THE annual spraying number of "Better Fruit" was produced in April and it is universally considered to be the best spraying edition ever published by any magazine in the world. Its value is unlimited. Any one of the articles, "Spraying for Codling Moth," by Doctor Ball and Professor Melander; "Spraying for Apple Scab," by Professor Cordley; Professor Bradley on "Bordeaux," and the articles by Professor Gillette on "Green and Woolly Aphis" and by Mr. Hurst on "Codling Moth," are of inestimable value to any fruit grower. Their worth to the grower depends simply on how many acres of orchard he owns. These articles are worth all the way from one dollar to one hundred dollars, yes, one thousand dollars, to every individual fruit grower.

The KURTZ
Fruit Dryer

Simplest, cheapest and best dryer in use in Oregon, Washington and California. Tunnel system, best system on earth. We build by contract or furnish plans and patent rights and material, wire cloth, cast iron furnaces and furnace pipes. We also manufacture the Kurtz Prune Dipping and Spreading Machine. It has no equal; saves its cost in less than one season; capacity 200 to 250 trays per hour. Write for descriptive circulars and prices

CLINTON J. KURTZ
SALEM, OREGON

Best Tokay Grape, Apricot, Peach, Melon and Potato Land
TO BE FOUND ANYWHERE

East Goodnoe Hills

Can show you orchards and vineyards close by. I can sell this land, practically level, ready to plow and plant, at from $25 to $45 per acre, close to railway and Columbia River. This is close to the Goodnoe Hills where the same kind of soil is selling for $100 per acre and up—worth it too. This land will be worth $500 per acre in a few years, and I can demonstrate it to you if you will give me an opportunity. I have only about 500 acres at those prices. Nothing less than 40 acres sold in one tract

Best of Easy Terms

O. J. NELSON
Smith Block Hood River, Oregon
REFERENCE: FIRST NATIONAL BANK

Hood River Nurseries
Have for the coming season a very complete line of

NURSERY STOCK

Newtown & Spitzenberg propagated from selected bearing trees. Make no mistake but start your orchard right. Plant generation trees. Hood River (Clark Seedling) strawberry plants in quantities to suit.

SEND FOR PRICES

Rawson & Stanton, Hood River, Oregon

Buy and Try

WHITE RIVER FLOUR

MAKES

WHITER, LIGHTER BREAD

Burpee's Seeds that Grow
140 VARIETIES ANY QUANTITY

Plenty of Stock in our 40,000 Pounds

Growing Plants as Season Requires
All Makes High Grade
Pruning Tools
Garden Tools
Hose and Spray Nozzles
International Stock and
Poultry Food
International Remedies
Incubators and Brooders
Everything for Building
Everything for Furnishing

Stewart Hardware & Furniture Co.
22,000 feet floor space HOOD RIVER, OREGON

"THE OLD RELIABLE"
Albany Nurseries
INCORPORATED
ALBANY, OREGON
LARGE STOCK, FIRST CLASS TREES

Place Your Orders Now
Catalogue Free

MORE SALESMEN WANTED

GOOD TREES

The planter who sets in his orchard other trees than the best he can buy—is making a serious mistake.

A good tree at a fair price is cheaper than a poor tree or one of questionable worth as a gift.

Orchard land is too valuable to be encumbered with trees that will be a long time in bringing returns.

Our trees are grown on the Yakima Reservation, isolated from old orchards, being as a consequence, free from pest or disease, and, possessing a splendid root system, they make a rapid growth and come into early bearing.

Agents everywhere
More wanted

Washington Nursery Company
TOPPENISH, WASHINGTON

PRACTICAL ADVICE ON PLANTING APPLE TREES

THE advice is often given to prospective planters of apples to get the trees in the fall and heel them in for spring planting; but I could never see why a tree heeled in outside is in any better or even in as good a shape as if it was properly planted. In fact, in nearly all parts of the country fall planting is greatly to be preferred to spring planting, so far as the apple is concerned. In sections where the soil does not freeze deeply the trees will be making new root fibres and feeding hairs ready to start with the first breath of spring.

No matter how carefully a tree may be lifted from the nursery the fine fibres and root hairs that get food from the soil are inevitably dried up, and new ones must be formed before the tree can get food from the soil. Hence the old advice about getting up all the roots practicable is now generally ignored. In preparing a tree for planting I always prune all the roots to about six inches around with a sharp knife on the under side. New fibres will be produced far more readily from this cut surface than from the old, dried-up fibres.

Then the common practice has been to let apple trees stand in the nursery until they are several years old. The nurserymen know that most people want tall trees, and they grow them with a tall stem and a partially developed top. At a farmers' institute last winter in Pennsylvania a nurseryman made a talk on apple culture, and he had a tree from his nursery to show what he grew. It was a four-year-old tree, with a stem four feet high and a top branching above that. In the discussion that followed I told him that I would not plant a tree like that if it were given to me, for I knew that a short stem was far better, and it could not be made with a tree of that age.

For many years past I have always planted one-year trees. These, of course, the nurseryman can sell cheaper and the freight is less. They are mere switches, with live buds from the ground up. Having such a tree one can start the heads at a uniform height and make low-headed trees. "But," said the nurseryman, "people want tree stems tall enough to work a team under." I have heard that excuse for tall-stemmed trees for many years, and it is the only reason urged. But there is no sort of reason for putting a team under a tree. If one wants to cultivate under it, it is easy to use a wide extension cultivator while the team is outside.

But, as the feeding roots of the tree are just outside the drip of the limbs, if cultivation reaches that point it is enough. The advantages of low-headed trees are many. They do not blow over and get lop-sided, as tall ones are sure to do; They are easily protected from sun scald while young by a shingle on the southwest side of the short stem till the top shades it; if the fruit falls it is not bruised, as from a tall tree, and it is more easily gathered. But more than all in these days, when spraying is essential, it is easy to spray a low tree, while any one who has ever attempted to spray one of the old big trees, with a tall trunk, knows how difficult it is to do the work effectively.

All the stem a tree needs is enough above the ground to carry the head, for it is the head and not the trunk that makes the fruit. Hence, having a one-year-old tree one can plant it and head back the stem to twenty inches or less and know that in the spring there will be an abundance of shoots to form the head. Having properly pruned the roots, I set the tree in the crossings of the furrows made by the plow in checking the rows, and if this is done with a large plow only a little cleaning out of the crossings need be done and all the labor of digging great holes is avoided. The earth is packed to the roots as tight as in setting a post, so as to hold the moisture and exclude the air. Care is taken to have the trees in exactly straight rows both ways not only for looks, but for ease in cultivating them.

Then the top is cut back to a bud on the stem about twenty inches from the ground. In the spring, when growth begins, I select three or four shoots to form the limbs for the head and rub off all others. These shoots should be at different heights, so that the lowest will be about a foot from the ground.

During the following summer close attention is given to the growth, and if one limb seems to be getting the advantage of the others I nip its tip to check it and let the others catch up, so as to keep the top in a symmetrical shape.

Low-growing crops, like potatoes, should be planted, and early potatoes, too, so that the crop will be off by the time the trees have made their growth for the season. Then cowpeas or crimson clover is sown for the purpose of turning under to help the humus making in the soil.

The proper distance for apple trees is not less than thirty-five feet apart each way. Forty feet will be better in strong land, and then peaches can be set mid-

Yakima Valley Nursery
Incorporated $60,000 Fully Paid

LARGEST STOCK OF
FRUIT TREES
in the Pacific Northwest.
Special prices for large planters. *Salesmen Wanted Everywhere*

W. D. INGALLS, *President and Manager*
NORTH YAKIMA, WASHINGTON

NUTS *and* FRUITS *and* FLOWERS

Are you seeking some especially rare plants or beautiful flower? If so write to us about it. Our stock includes almost everything in hardy plants and trees for garden and orchard. Rare Japanese Plants a specialty.

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WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

1909 SEED CATALOGUE

100 pages of most interesting information about Flowers, Vegetables, Bulbs, Field Seeds, Grains, Grasses, Plants, Shrubs, Garden Supplies, Poultry Supplies, Fertilizers, Sprays. Twenty years experience in seeding the Pacific Northwest speaks to you in this our very latest

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CULTURAL DIRECTIONS PREMIUM OFFERS
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THE DALLES NURSERIES

Portland Wholesale Nursery Company, Owners
(Successors to R. H. Weber)

GROWERS OF
Choice Fruit and Ornamental Trees, Grape Vines, Small Fruit Plants and Shrubbery

We do not employ Agents, but sell DIRECT to the Planter, making Commercial Orchards a specialty

All correspondence should be addressed to
THE DALLES NURSERIES
Room 3, 122½ Grand Avenue
PORTLAND, OREGON

REMEMBER—OUR TREES ARE GROWN STRICTLY WITHOUT IRRIGATION

way between the trees each way and will have served their purpose by the time the apples need all the room, and can be pulled out. Some fill in with an early-bearing apple like the Missouri Pippin, but the danger then is that the owner will defer cutting out the fillers till the orchard is crowded and damaged.

In sections where snow falls heavily the open head I have mentioned may not be the best, and the young tree should be allowed to keep a central stem while the branches are taken out below, but in most sections the round, open head is best. Attention should be given during the season of growth to prevent the so-called water sprouts in the middle of the three. These can be rubbed out as they start, and the growth secured where needed, while if left to grow during the season there will be a large branch to cut and the other limbs will not have got the growth they should have had.

In the second year's pruning the branches are cut back one-third, and if the trees are naturally inclined to spread and droop too much, cut to a bud on the inside, so as to direct the growth more perpendicular; and if the tree naturally grows too erect, cut to a bud on the outside to make it spread more.

Good cultivation and fertilization are needed in the formative period of the tree's growth, but rapid growth is not conducive to early fruiting. Trees like the Northern Spy, which naturally grow strongly, are always slow in getting to be fruitful, and any tree in very fertile soil will use the abundance of food in the easiest way, in the production of wood. Then, when trees have attained a size that should be fruitful, we give them a slight check by seeding the orchard down to grass. But this grass is for the trees only, and not for hay or pasture. The growth of the grass should be encouraged by annual top dressing of bonemeal and potash, and the grass mown several times and raked under the trees as a mulch, for moisture is one of the essentials in apple culture, and the decaying mulch adds humus to the soil and humus retains moisture for the tree.

The success of the Albemarle Pippin in the Virginia mountains is due to the humus soil of the mountain coves, drained by the rocky debris of the mountain sides and kept moist by the springs that break out on the slopes, and to get similar conditions on a dry clay soil we must accumulate humus in the soil, and in no way can this better be done than by the accumulation of the cut grass as a mulch and constant attention to the fertilizing of the soil to get more growth of the grass.

Spraying must be regularly attended to from the start—with Bordeaux mixture to keep the foliage good and to prevent scab and bitter rot.—Ex.

HENS THAT LAY IN WINTER
AS WELL AS SUMMER IS WHAT YOU WANT

I am selling a limited number of settings from my Special Pen of SINGLE COMB RHODE ISLAND REDS. These birds have been prolific layers through December, January, and February. $2.50 for FIFTEEN EGGS

Wm. B. Dyer, Calamus Lodge, Hood River, Oregon

TREES TRUE TO NAME. PLACER NURSERIES — The Silva-Bergtholdt Co. Newcastle, Calif.

FRUIT TREES

ALL STANDARD COMMERCIAL VARIETIES

The best that good care can produce

Write us now concerning your Fall and Winter Planting

AGENTS WANTED

The Silva-Bergtholdt Company
121 Orchard Street Newcastle, California

FRUIT GROWERS, YOUR ATTENTION!

Royal Ann, Bing and Lambert cherry trees; Spitzenberg and Newtown apple trees; Bartlett, Anjou and Comice pears, and other varieties of fruit trees

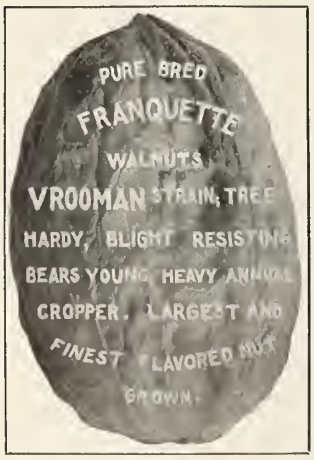
A. HOLODAY

MONTE VISTA NURSERY
SCAPPOOSE, OREGON

True-to-Name Nursery
OFFERS TO PLANTERS

Desiring strictly first-class one-year-old trees grown on No. 1 whole roots a few thousand apple, pear and cherry of the leading varieties adapted to the Pacific Northwest. We make a specialty of growing Yellow Newtown and Spitzenberg and personally select all buds and scions from bearing and tested trees. Order now for fall 1909; get trees guaranteed "true to name," and avoid future disappointment. Address

H. S. GALLIGAN
Phone Home 2002K Hood River, Oregon
Catalogue on Application



Next Year Will See

More Fruit Trees planted than last year. The same is true of the

Vrooman Pure Bred Franquette
WALNUT TREES

The demand for this famous Walnut is growing in proportion as people learn its real merits. It is recognized as the *best* on the market because it is *hardy*, bears regularly and produces heavily. The *nut* is large and well filled with rich oily meat of superior flavor. This Walnut commands the highest price on the market just as do choice apples or pears. If you are interested in Walnut culture send for our FREE BOOKLET on this subject.

Oregon Nursery Company

SALESMEN WANTED FOR NEXT SEASON SALEM, OREGON

420 Acres Devoted to Nursery Purposes

THE WOODBURN NURSERIES

Established 1863 by J. H. Settlemier
Grower of Choice
Nursery Stock
F. W. SETTLEMIER
WOODBURN, OREGON

APPLES WHOLESOME FOOD—SAVE DOCTOR BILL

BY F. E. MERRICK, MEDFORD, OREGON

IT HAS occurred to me that in this day, when the fruit growers are working hand in hand with the commercial clubs exploiting the advantages of their several communities for fruit growing and thereby inviting competition, that not a corresponding effort is being made to advertise to consumers the benefits to be derived from the free use of the commodities which we are soon to put upon the market from all the Northwest fruit districts. The large acreage planted to apples behooves us to stimulate the use of that healthful fruit so that we may always look for an increasing demand which will fully justify us in the expectation of a rich reward for the efforts put forth. Just now there is a popular wave passing over the country, on the crest of which we may ride with great financial gain to ourselves and a blessing to our fellowmen if we take advantage of its importance and influence. I refer to the "right living" thought which is being taken up by newspapers, magazines and churches and embraces the subject of diet. It is well known that the apple is the healthiest as well as the most universally liked fruit grown today, and with this asset in its favor to begin with all we need is a well organized campaign of advertising to keep the fact before the consuming public at all times to create a demand which the apple growers will find it a problem to fill. Patent medicine and breakfast food manufacturers have become wealthy without one-half the intrinsic values to their wares we would have. A part of this advertising could be done without any material cost to the producer by taking advantage of space on box labels, wrappers, letterheads, envelopes, etc.

The question should be taken up by Fruit Growers' Unions and Horticultural Societies and a campaign started as soon as some definite plan could be decided upon. There could be no jealousy between different fruit sections, for all would be after the same results, namely, increased consumption and big prices. Some slogan should be adopted and kept continually before the people until it becomes a household word. To start the ball rolling I would suggest "An Apple a Day Keeps the Doctor Away." This seems to cover the whole question, is short, has rhythm and easily remembered. As a side line under "Health Hints," Baked Apples for Breakfast" and other forms of advertising could be adopted, although a slogan such as the one above should be universally used by all growers. As an illustration of what increased consumption means it is only necessary to note that a town of five thousand people using each one apple a day for ten months would require fifteen thousand boxes of apples. Trusting that through the influence and circulation of "Better Fruit" some good may come from this suggestion.

◈ ◈ ◈

THE Friend Manufacturing Company, Gasport, New York, has advised us that it has sold ninety-five 1909 Model Sprayers, which is double its output last year up to the same time.

A REPUTATION TO SUSTAIN

VINELAND NURSERIES COMPANY

PROPAGATORS OF

Reliable Nursery Stock

ALL STOCK BUDDED FROM BEARING TREES
FRUIT AND ORNAMENTAL

CLARKSTON, WASHINGTON

F. K. Spalding, Pres. W. S. McClain, Sec.
Harry K. Spalding, Vice Pres.

The Sunnyside Nursery Company

Paid up Capital $26,000.00

The Sunnyside Nursery Company have sold practically all of their stock for spring delivery of 1909, and call your attention to the great stock they are growing for next year's trade. They will have

1,000,000 Apple Trees
200,000 Pear Trees
150,000 Peach Trees
100,000 Cherry Trees
50,000 Miscellaneous Varieties

Most complete stock in the Northwest. Write for prices

Main Office at Sunnyside, Washington
Branch Nursery at Grandview

Apple Seedlings
NUMBER FOUR

Two Fifty Per Thousand

APPLE GRAFTS PIECE ROOTS
Order quick

FOREIGN FRUIT TREE STOCKS
Cherry, Plum and Pear

CONCORD GRAPES — *One and Two Year*

CHERRY TREES—*All Grades*
A Large General Stock

Submit List for Prices

Shenandoah Nurseries

D. S. LAKE, *Proprietor* SHENANDOAH, IOWA

Plants and Trees that you can depend on

Fruit and Ornamental—are supplied by Harrison's Nurseries. If you have been a patron you will be interested to know that our 1909 stock is bigger and better than that of any previous year. Should you never have tried Harrison's plants and trees, it will pay you to find out about them before you make your spring purchases.

PEACHES, APPLES AND PEARS

Are fruits in which Harrison's Nurseries lead, both in quality and quantity. Our 1909 stock includes some seven hundred thousand fine young Peach trees, approaching a million well-grown Apple trees, and hundreds of thousands of Pears. We have also complete assortments of Cherries, Plums, Quinces, Currants, Grapes, etc.

ORNAMENTAL SHRUBS FOR HOME GROUNDS

Including Evergreen and Deciduous kinds—have had the attention at Harrison's which insures vigorous, healthy specimens. We are especially strong in California Privet, Rhododendrons, Roses, Bay Trees, and the favorite hedge plants and shrubs for suburban and farm use. Shade trees good for all-round planting are grown in large quantities.

FREE—OUR NEW AND BETTER CATALOGUE!

It is away ahead of any book we have sent out in the past and well worth writing for. Our fruit tree and ornamental offerings are accurately described and illustrated—all pictures from non-exaggerating photographs. Beautiful color covers, true to life, showing Strawberries, Peaches and Apples. Send for a copy today and get an explanation of why it now requires a thousand acres to grow the stuff we sell every year.

HARRISON'S NURSERIES *Box 447, Berlin, Md.*

SEASON OF 1908 HAS MARKED EPOCH IN HOOD RIVER VALLEY'S FRUIT GROWING INDUSTRY

FROM THE FRUITMENS' GUIDE, NEW YORK

ONE of the most interesting features so far, in an apple season replete with interest, has been the Hood River deal. Never before has the fruit of the famous valley in Oregon invaded the East to such an extent; never before has its triumph been so clean cut and complete. The season of 1908 has, without exaggeration, been epochal to the Hood River Valley, and, more than any other three seasons combined, has succeeded in bringing the valley's apple output before the immediate attention of the Eastern consuming public. In fact, it may be fairly said that the initial impetus given by the dashing and brilliant handling of the Hood River deal this season was, to a great degree, responsible for the marked publicity that the Western box apple has recently been receiving in all quarters. A little "circussing," as a showman would put it, does no line of business any harm, and the Hood River apple has been "circussed" admirably—just enough and not too much.

But there is no royal road to success in the apple business. The credit for the showing made in this deal, so largely conceived and so quickly, skillfully and successfully consummated, is to be divided, share and share alike, between the men who grew, packed and shipped the fruit in the West, and the men who handled, distributed and "plugged" it in the East. To the Hood River Apple Growers' Union is due the utmost meed of praise in sending forward a pack that was as near perfection as anything human can be. With these apples it was indeed a case of, "You see one, you see all," and it hasn't taken the public long to catch onto that fact. Well over a hundred cars from the valley—knocking all previous records galley west—with the top layer in every box typical of all the other layers, and every box, pick it as haphazard as you please, typical of the balance of the car. Such

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AND AGRICULTURAL
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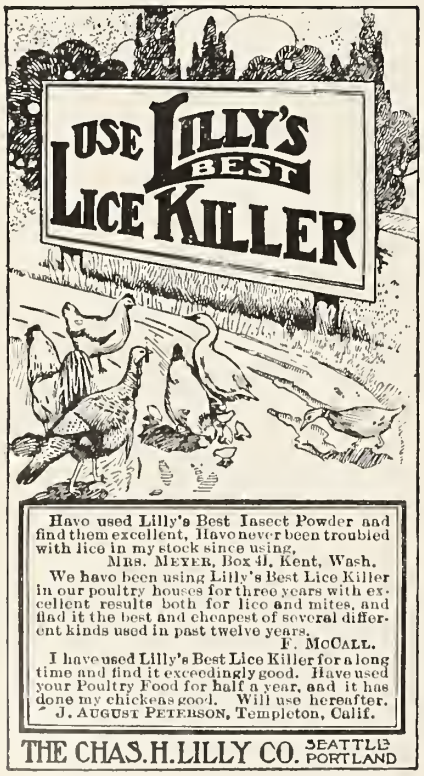
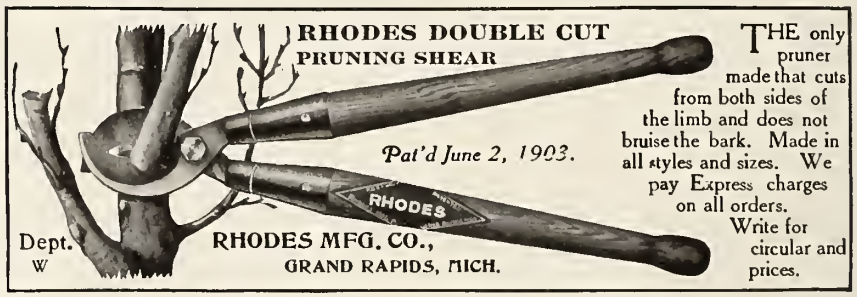
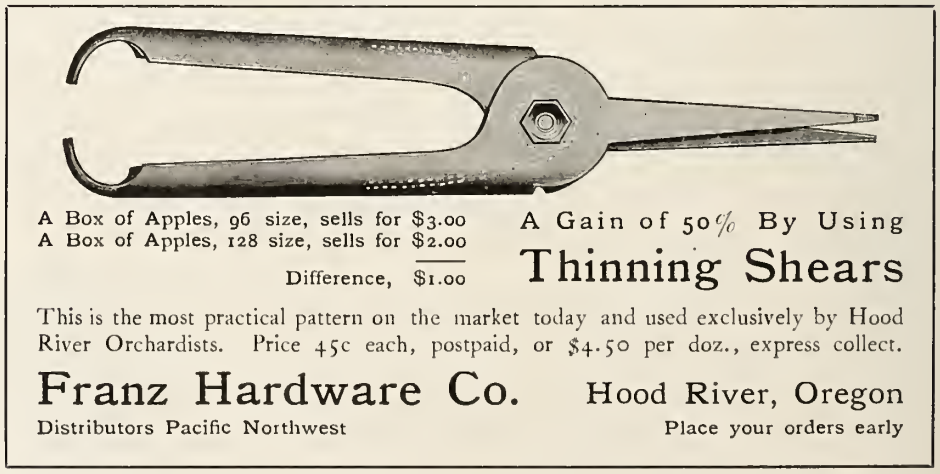
THE BEST OF
ORCHARD AND GARDEN TOOLS
A SPECIALTY
J. R. NICKELSEN
HOOD RIVER, OREGON







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HOOD RIVER, OREGON

Headquarters for
FARMING AND ORCHARD
TOOLS
Disc Harrow Extension for Orchard Cultivation a Specialty

When you want any kind of Orchard Tools come to me and get the BEST

apple growing and packing can't help winning, especially when the factors who attend to the selling of the goods are made of such metal as Steinhardt & Kelly, the house that handled the deal this season, and who have helped to make the Hood River product known and esteemed in households that never heard of the valley before.

It has been a big deal and it has been a quick deal, with the end crowning the work. It has gone to a successful completion without a hitch, snarl or setback, and has done more for the Hood River section than a whole regiment of press agents and publicity agents.

Pacific Seed Co.
201-203 Front Street
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GRASSELLI'S
The Best Arsenate of Lead Made

Lime-Sulphur Spray
The Famous Niagara Spray
A perfect and permanent solution and so highly concentrated that one gallon will make twelve gallons spray winter strength, and twenty summer strength. The extensive use of Niagara in the leading fruit sections attests its value

MANUFACTURED BY
Hood River Spray Mfg. Co.
Hood River, Oregon

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POTASH
The way to make
Apples
pay is to raise not only *more* apples on each tree, but better apples in your whole orchard. Potash notably increases the yield and improves the quality—gives you more apples to sell and at a better price. See that your commercial fertilizer has enough—say 10 per cent.; or about 10 pounds of actual Potash to every hundred of the fertilizer.

Potash is Profit
Valuable literature, free, on fertilizing APPLES and all other fruit.

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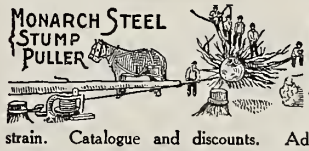
Better Fruit
is printed by us

We arrange and print booklets for growers of fruit, development leagues and others

F. W. Baltes & Company
PRINTERS
PORTLAND, OREGON

MONARCH STEEL STUMP PULLER



Pulls stump 7 feet diameter. Only Steel Stump Puller Factory in the world making their own Steel Castings. Guaranteed for 500 horse power strain. Catalogue and discounts. Address:
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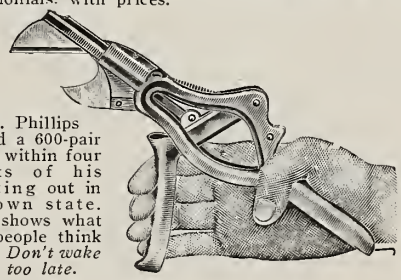
GENERAL AGENT FOR OREGON
W. M. KOLLOCK HOOD RIVER, OREGON

AGENTS WANTED
To sell our complete line of nursery stock. Cash weekly. Outfit free.
ADDRESS
Capital City Nursery Co. *Salem, Oregon*

Don't Mangle and Stunt Your Trees
And shrubs with the ordinary pinching shears. *Their life means money* to you. The quickest healed cut in the world made by The Little Gem Pruner. Cuts from both sides with a draw cut, sliding action, like a knife. Recommended by Luther Burbank, foremost horticultural authority of the world. Write for further description and testimonials, with prices.



Mr. Phillips placed a 600-pair order within four weeks of his starting out in his own state. This shows what live people think of it. *Don't wake up too late.*
HALLOWAY MFG. CO.
Dept. X, Ottumwa, Iowa Exclusive Manufacturers

WE INDORSE
SCALECIDE
as the best Spray for PACIFIC NORTHWEST Fruit Trees. It kills ***San Jose Scale,*** all Soft-Bodied Insects and Fungus. Write for Booklet No. 204 and for FREE SAMPLE
DIAMOND PORTLAND SEED CO QUALITY
PORTLAND SEED CO. PORTLAND, OR. SPOKANE, WN.
Sprays Fertilizers Horticultural Supplies

When you get to Hood River stop at the

MT. HOOD HOTEL

Trains stop directly in front of Hotel. ¶ Bus meets all boats

Automobile Service Daily for Cloud Cap Inn During Months of July, August and September

AWARDS GIVEN ON THE EXHIBITS OF FRUIT OF THE OREGON STATE HORTICULTURAL SOCIETY

THE judges who passed on the fruit exhibits of the Oregon State Horticultural Society, made the following awards:

No. 1—For best five boxes of apples, not less than three varieties, cash donated by Hazelwood Cream Company, $50; E. H. Shepard, Hood River.

No. 2—For best five boxes of Spitzenberg apples, cup donated by Portland Hotel, value $50; John Hakel, Hood River.

No. 3—For best five boxes of Yellow Newtown apples, cup donated by Merrimac Chemical Company though Clarke-Woodward Drug Company, value $50; E. H. Shepard, Hood River.

No. 4—For best six boxes of apples, not less than four varieties, cup donated by Pacific Paper Company, value $40; J. Marguli, Hood River.

No. 5—For best five boxes apples grown in Willamette Valley, merchandise donated by Portland Seed Company, value $25; D. C. Van Dorn, Dayton, Oregon.

No. 6—For best three boxes Baldwin apples, cup donated by Better Fruit Publishing Company, value $25; J. L. Carter, Hood River.

No. 7—For best box Spitzenberg apples, 96s or larger, cup donated by Butterfield Brothers, value $20; F. C. Dethman, Hood River.

No. 8—For best three boxes Northern Spy apples, cup donated by J. K. Gill Company, value $20; E. H. Shepard, Hood River.

No. 9—For best box Spitzenberg apples smaller than 96s, cup donated by Lipman, Wolfe & Co., value $20; E. H. Shepard, Hood River.

No. 10—For best box Yellow Newtown apples, 88s or larger, cup donated by A. & C. Feldenheimer, value $20; F. C. Dethman, Hood River.

No. 11—For best three boxes Ben Davis and Baldwin apples grown in the Willamette

When you come to Portland take THE CORNELIUS omnibus and go to

The Cornelius

Corner Park and Alder Streets, Portland's newest and most up-to-date hotel. It is sometimes difficult to make a change in hotels. However, give "THE CORNELIUS" a trial on your next visit to Portland and be happy. European plan. Rates reasonable.

Under the Management of N. K. Clarke, late of the Portland Hotel

DR. C. W. CORNELIUS, Proprietor

St. Helens Hall

Portland, Oregon

A GIRLS' SCHOOL OF THE HIGHEST CLASS

CORPS OF TEACHERS, LOCATION, BUILDING, EQUIPMENT THE BEST

Send For Catalogue

IS PONCE DE LEON'S DREAM A REALITY

So It Appears from Recent Investigations Made of

PASO ROBLES HOT SPRINGS, CALIFORNIA

HOPELESS CASES CURED LEAD TO COMMENT

In the days of Spain's splendor, when returning Spanish galleons brought precious cargoes of gold and other minerals back to Madrid, wild legends of springs of eternal life were told in every European court.

Ponce de Leon, a Spanish gentleman of great riches, fitted out an expedition and went in search of the spring of life. The ludicrous and pathetic ending of this expedition is known to every schoolboy, but it is very often called to mind by some new discovery of wonderful healing springs somewhere in the wilds of Africa, India or Asia.

The recent and practical demonstration of mineral springs which make marvelous cures has again brought forth the story abroad of Ponce de Leon's myth.

Paso Robles Hot Springs, California, are now the cause of universal wonderment, because of the continued successful cures being made there.

But aside from any romantic feature of the springs, dealing with its Indian tradition or its occupancy by the Franciscan monks, Paso Robles is today among medical men who know, the cause of much interest and scientific investigation.

Many are not aware of what a place Paso Robles really is. The town is by all means one of the most thorough health towns in the world. It is given over to the cure of the sick. Its citizens regard its waters almost in an infallible light.

The temperature, altitude, air and scenery make of it an idealistic retreat. Its cures of rheumatism, gout, stomach trouble, kidney and other organic diseases, have been so remarkable that its citizens believe there is nothing its baths cannot conquer. They have passed generous health laws, permitting anyone to bathe in the municipal bath house except those who have tuberculosis or unclean ailments.

They do not stop at any expense in their endeavor after equipment, and the public bath house stands today one of the finest in America, either public or private.

Invalids from all over the country come to Paso Robles. Here can be seen every strata of human life, from the bank president in the sumptuous hotel to the sick man reposing in his tent on the meadows.

Paso Robles is distinctly a spot where weak women gain health rapidly, and an hour's conversation at the bath house will reveal tales of nervous women who have been cured.

One wonders, after being at Paso Robles (The Pass of the Oaks), whether Ponce de Leon really was without justification when he started in search of the wonderful "waters of youth."

Call on or Address WM. McMURRAY, General Passenger Agent, Southern Pacific Co. (Lines in Oregon), Portland, Oregon, for Illustrated Booklet giving full information about PASO ROBLES HOT SPRINGS, *or write to the manager, Paso Robles Hot Springs, Cal.*

THE FAMOUS

Hood River Strawberries

ARE RIPE. PLACE YOUR ORDER NOW WITH THE

Hood River Fruit Growers Union

HOOD RIVER, OREGON

Fruit dealers, commission men, grocers, fruit stands and markets are advised to place orders early. The demand will exceed the supply.

Hood River Strawberries are famous. For excellency of flavor they are unequaled.

Hood River Strawberries are popular with the trade on account of their shipping qualities, always arriving in perfect condition by express at all ports.

Hood River Strawberries for these reasons make better money for the dealer than any other berry.

The Union Guarantees quality. Dealing with the Union means protection.

No matter at what price you order, the Union always bills at the market price on the day of shipment.

Quotations mailed on request.

Valley, cup donated by Mason, Ehrman & Co., value $20; D. C. Van Dorn, Dayton, Oregon.

No. 12—For best box Arkansas Black apples, cup donated by Meier & Frank Co., value $20; Montague Farm, Hood River.

No. 13—For best box Yellow Newtown apples, smaller than 88s but not smaller than 128s, one Hardie barrel sprayer, donated by the Hardie Manufacturing Company, value $25; L. E. Clark, Hood River.

No. 14—For the best box of Baldwin apples, one Acme harrow, donated by Mitchell, Lewis & Staver Co., value $15; J. L. Carter, Hood River.

No. 15—For best box Northern Spy apples, one Goldenrod rocking chair, donated by Tull & Gibbs, value $15; E. H. Shepard, Hood River.

No. 16—For best box Ortley apples, cup donated by Blake, McFall & Co., value $15; William Ehrk, Hood River.

No. 17—For best box Red Cheek apples, cup donated by Russellville Nursery Co., value $15; L. E. Clark, Hood River.

No. 18—For second best box Northern Spy apples, carriage robe donated by Studebaker Brothers & Co., value $15; F. C. Dethman, Hood River.

No. 21—Second best box Spitzenbergs, 96s or larger, one Morris chair, donated by William Gadsby & Sons, value $15; E. H. Shepard, Hood River.

No. 22—For best box Ben Davis apples, cup donated by J. B. Pilkington, value $10; L. E. Clark, Hood River.

No. 23—For best display dried fruits in quart glass jars, not less than three kinds of fruit, cup donated by J. J. Butzer, value $10; Mrs. Clara Garnett, Portland.

No. 24—For best display Oregon-grown unbleached English (Persian) walnuts, not less than ten pounds, cup donated by Oregon Nursery Company, value $25; James Morrison, Dundee, Oregon.

No. 25—For best ten glass jars canned fruit, at least four kinds of fruit, open only to the wives or daughters of growers, one Fairbanks Weight-Right platform and scoop scale, donated by Fairbanks, Morse & Co., value $15; Mrs. A. J. Lewis, Oregon City.

No. 26—For best two-quart glass jar dried Italian unprocessed prunes, cup donated by the Oregon Agriculturist, value $10; A. E. Jory, Salem.

No. 27—For best box Jonathan apples, cup donated by Charles H. Lilley Company, value $10; F. C. Dethman, Hood River.

No. 28—Second best box Baldwin apples, J. Marguli, Hood River.

No. 29—For second best box Jonathan apples; H. R. Albee, Hood River.

DID YOU GET YOUR COPY?

If not we will mail you our handsome

SOUVENIR BOOK Of STOCK FRUIT CASE

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Schmidt Lithograph Co.

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PORTLAND, ORE.

Write Us Today
Our Supply
Is Limited

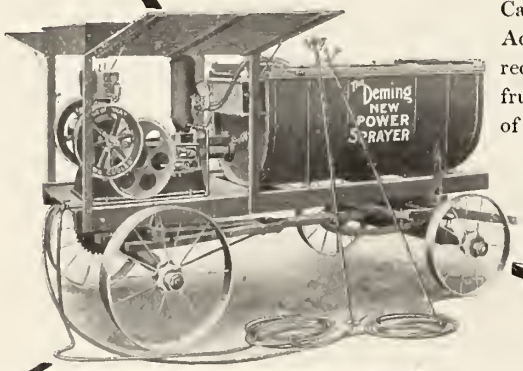
WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

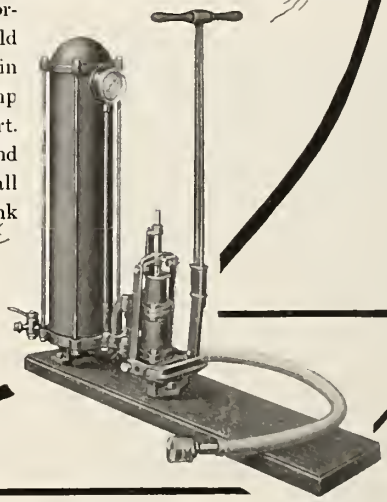
READ THE TEXT.

If you bunch the cost of spraying outfit, mixtures, labor, and all, the entire expenditure will not exceed a few cents per tree. Now weigh this against the *result* you obtain from the spraying. Figure on the number of bushels one average tree should yield—give it the limit, because it is to be sprayed—then multiply the highest market price that perfect apples bring per bushel, by this—deduct from the product the spraying cost, and see if each tree doesn't make a nice fat contribution to your bank account. Thousands of fruit growers have proven the above problem correct, time and time again. Of course a whole lot depends on your outfit, since the easier it works, the quicker the job is done and consequently a few more pennies can be deducted from the cost of giving each tree a new lease on life.

DEMING SPRAYERS

Pay the fruit grower because their ease of operation lessens the labor cost; their strong construction enables them to withstand hard usage; their brass working parts make them immune to any spraying liquid. They are well balanced, carefully made and thoroughly tested. We make Bucket, Barrel, Knapsack, Tank, Field and Power Sprayers, for Whitewashing and Fire Protection in addition to spraying. Write for our illustrated Spray Pump Catalogue and 12 page Spraying Chart. Add four cents to cover postage and receive a guide book, of value to all fruit growers who spray or who think of spraying.





THE DEMING COMPANY

SALEM 755 DEPOT STREET OHIO

HAND AND POWER PUMPS FOR ALL USES

CRANE CO.

SPOKANE AND SEATTLE, WASH. PORTLAND, OREGON SAN FRANCISCO, CAL.

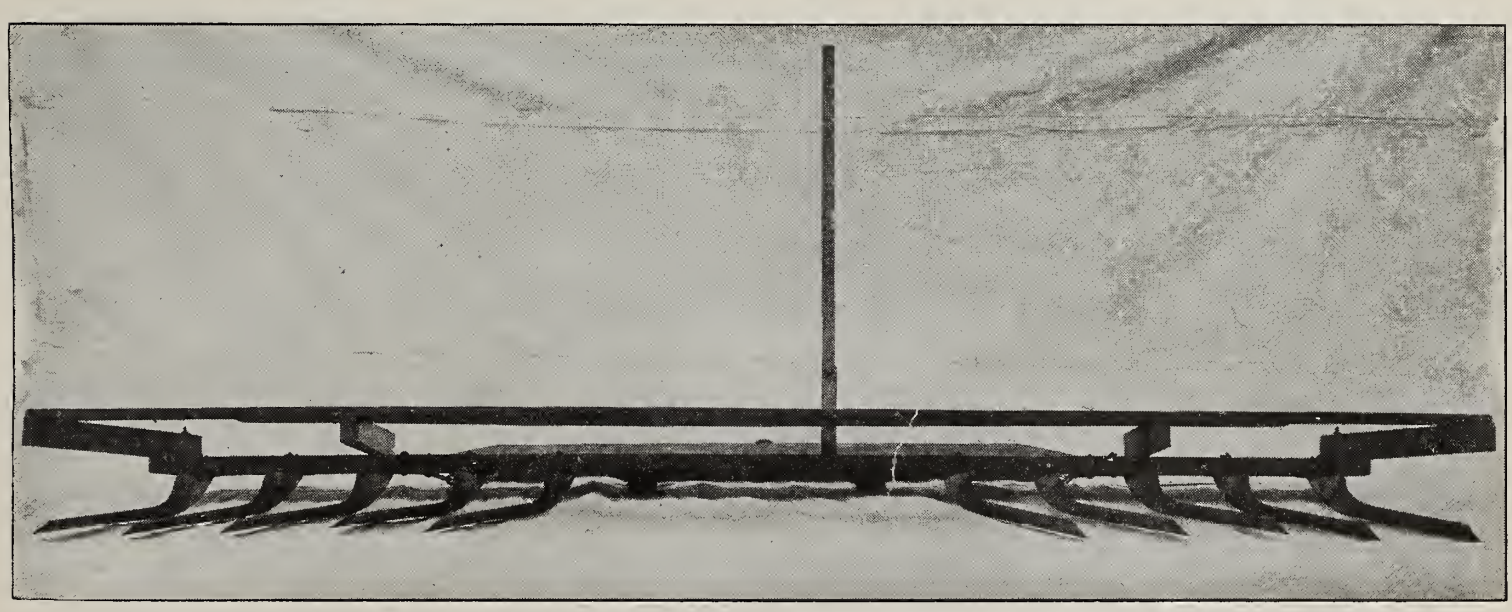
THE KIMBALL CULTIVATOR

King of all orchard cultivators. Cuts below show two most desirable sizes for orchard work

This cut represents our eight and one-third foot cut which is extensively used in orchards and for working summer-fallow

It should be borne in mind that frequent stirring of the soil is very beneficial to orchard crops as it creates a dust which prevents capillary evaporation of moisture, the retention of which in the soil is absolutely essential to the production of a profitable crop

This cultivator will thoroughly cover one acre in one hour, thus easily performing the work of ten or twenty men. Price of the 8⅓ foot **$20**



This cut shows our twelve foot extension and is our latest and most up-to-date design specially constructed with a view to orchard work. The extension head throws blades far out to either side of center thus eliminating necessity of crowding horses under trees and avoiding all chance of abrasions by hames or other parts of harness coming into contact with limbs or trunks, or stripping lower limbs of fruit and leaves

Every up-to-date orchardist should have one of these tools. Price **$22.50**

JOHNSTON & WEBER

Exclusive Agents for Oregon, Washington and Idaho THE DALLES, OREGON

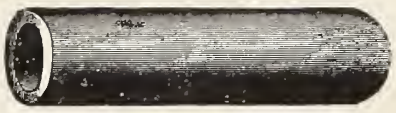
CARLOAD OF PRIZE WINNING APPLES SENT TO NEW YORK CITY AND SELLS FOR $2393.50 GROSS

THE car of apples which won the capital prize of $1,000 at the National Apple Show at Spokane, Washington, reached New York on Monday of this week and was on exhibition at the Erie pier until Wednesday, when it was sold. The car came to D. Crossley & Sons, it having been secured by William Crossley, the managing director of the firm, who is now in the West. The car was grown by Michael Horan of Wenatchee, Washington, and it was, without doubt, the finest car of fruit that was ever brought here from the State of Washington. The varieties consisted of Rome Beauty, Winesap, Jonathan, Spitzenberg, Arkansas Black, Black Twig, Winter Banana, Delicious and Grimes Golden. The car grossed $2,393.50, but this sum does not represent all that was obtained by the proud grower; his prize money amounting to about $2,000, this sum including several amounts offered by J. J. Hill and W. T. Clark for choice boxes in addition to the $1,000 offered by the show management.

D. Crossley & Sons, who, as the trade is aware, have branches at New York, Boston, Liverpool and Glasgow, are entitled to great credit for obtaining such high-grade apples for this market, a fact which was duly appreciated by the trade, and Michael Horan, the grower and packer, has the distinction of winning great fame, not only for himself, but for the Wenatchee Valley, a fact that is commented upon by the Wenatchee Republic editorial as follows: "Standing at the head of Wenatchee Valley's roll of honor is the name of Michael Horan, whose carload of apples won the capital prize of $1,000 at the National Apple Show in Spokane over a dozen entries. This exhibition challenged the attention of the world and the Wenatchee Valley owes a debt of gratitude to Mr. Horan because of what he has done for it.

"Weeks of patient application were required to select the 60,000 apples that made up the carload, and the exhibitor spared neither time nor expense to get his collection together. Not being the least boastful, Mr. Horan made no predictions that he would bring back the

Salem Tile Factory



GOLD MEDAL

Highest award on Tile at Lewis and Clark Fair

Tile From 3 to 12 Inch

Order carload lots or for further particulars write for booklet or call on or address

J. E. MURPHY

Fairgrounds Post Office, Oregon

U. S. Government Irrigation Projects

Water thousands of Acres, but there are thousands more above the ditch which can be reclaimed *by the* Columbia Ram utilizing a small fall from ditch lateral or creek. ¶ The battery of Columbias as shown above irrigates about 240 acres of Grand View Hill, at Sunnyside, Washington.

If interested write for particulars

DEPT. B

Columbia Steel Co.

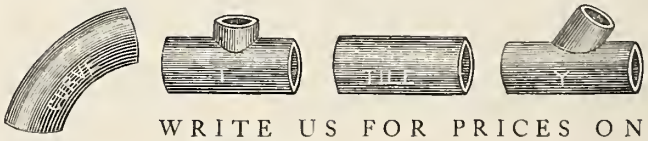
148 N. 10th Street, Portland, Oregon

White Salmon FRUIT LAND

Here is an opportunity to buy an apple orchard in the most famous apple belt in the world; one and one-half miles from Underwood, on the North Bank Railroad, and located on a county road of five per cent grade; White Salmon River borders this tract; a large hillside spring piped to the property furnishes an abundance of water the year round. Apples raised in this district were prize-winners at the Spokane National Fruit Fair. Strawberries are ready for market from this district two weeks earlier than elsewhere. Last year five acres in strawberries paid $1,500 net. We now offer this land in five and ten-acre tracts, cleared and planted with Spitzenberg and Yellow Newtown apples, on easy terms, or uncleared land in this tract at reasonable prices. For further particulars, write to apply to owner.

R. D. CAMERON

WHITE SALMON, WASHINGTON



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DRAIN TILE

All sizes from 3 to 24 inches. In small or carload lots. Also *Sewer, Chimney, Water and Culvert Pipe, Pipes for Septic Tanks, Etc.*

ALL OF OUR CLAY PRODUCTS ARE OF THE VERY BEST QUALITY

Oregon & Washington Sewer Pipe Co.

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Idaho Irrigation Lands BOUGHT AND SOLD

The Best of Earth—Twin Falls Tract

Twin Falls Realty Co.

S. H. Bolton, President *Write for Illustrated Booklet*

TWIN FALLS, IDAHO

blue ribbon in the banner class, but he did say that whoever defeated him would have 'to go some.' Yakima, Montana, Idaho and British Columbia tried for the prize but failed to land.

"Michael Horan's carload won because it was made up of perfect apples in the middle and at the bottom of each box, as well as on the top row. Conscientiousness entered into this pack more than anything else, and it won, for on examining the contents of the boxes entered by the other carload competitors the judges found many blemished apples underneath the exposed tiers."—Fruit Trade Journal & Produce Record, January 9, 1909.

◈ ◈ ◈

Practical Farm Drainage

THE second edition, rewritten, of this valuable work by Charles G. Elliott, chief drainage engineer and chief of drainage investigations of the U. S. Department of Agriculture, has recently been published by John Wiley & Sons, New York, at the low cost of $1.50. The scope and value of this work is shown by the subjects treated of, each in separate chapters as follows: "Soil as Related to Drainage," "Artificial Drainage," "Kinds of Drains," "Drainage Systems," "Location of Drains," and twelve more equally important topics connecting with drainage—in all, forming a complete manual for both student and farmer.—Rural World.

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Underwood *and* Little White Salmon
Choice Fruit Land for Sale
I have a number of choice places for sale, improved and unimproved. Some with good heavy timber, ranging in price from $18.00 to $100.00 per acre. I make a specialty of small tracts
F. W. DEHART
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J. M. Schmeltzer, *Secretary*
Hood River Abstract Company
Hood River, Oregon
ABSTRACTS INSURANCE
CONVEYANCING

Upper Hood River Valley
Cheap and the best of land. Plenty of water for irrigation at low rates. Good transportation facilities. You are cordially invited to see what I have done at my home in six years. I handle these lands.
W. H. MARSHALL
Dee, Oregon In Hood River Valley

LAND
Apples, Peaches, Cherries and Apricots are moneymakers. Why not buy land where they grow to perfection. I have some bargains
Roe A. Deal, Springville, Utah

HOOD RIVER

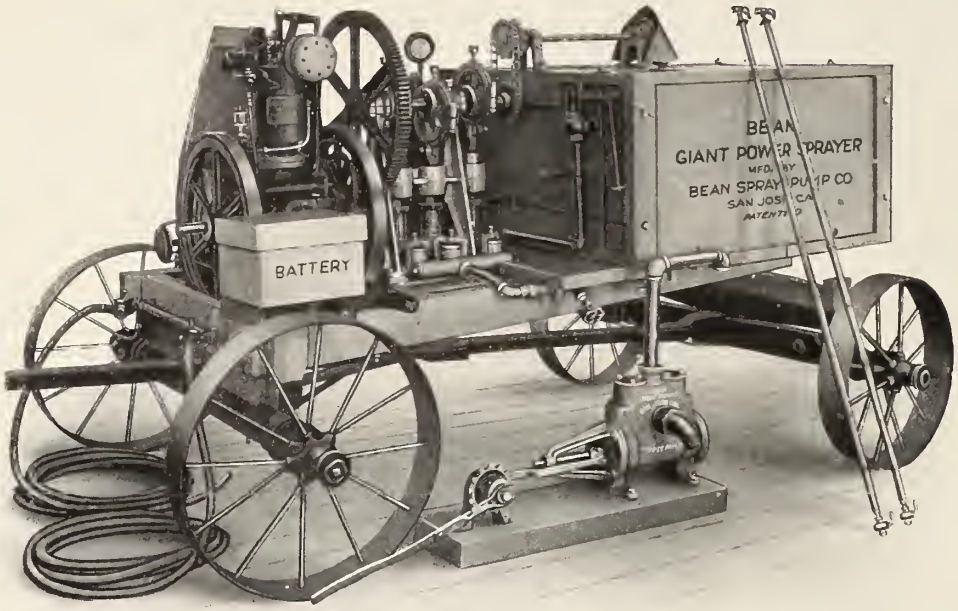
GROWS THE BEST APPLES IN THE WIDE WORLD

Hood River holds the high price record for nine years on Spitzenbergs and Newtowns.
Hood River apple pack is the only pack selling on the English market without the box being opened.
Hood River apples and pack are guaranteed. The seal of quality.
Hood River is the only fruit section in the world with a University Club. Over 100 members are fruit growers.
Hood River scenery is the grandest in the Northwest.
Hood River is healthy. Its water pure. Climate ideal.
Hood River people have health, wealth and happiness.
Hood River orchardists are clearing from $300 to $1,000 per acre.
Hood River Valley, its apples and people, are a class by themselves.

Hood River is just beginning to develop and set the upper valley to orchards. It is the best deep volcanic ash soil. I sold my place in the lower valley and bought in the upper valley because I could get more land for less money. I have 160 acres set to orchard not for sale. I have 160 acres ready to set. Price, $250 per acre. I will subdivide in 10, 20 and 40-acre tracts. This land in the lower valley would sell for $1,000 per acre. I have a few choice 10, 20 and 40-acre tracts, uncleared, at from $50 to $150 per acre. *Write for further particulars, or call on*

G. D. WOODWORTH, HOOD RIVER, OREGON

Bean Giant Power Sprayers



In order to illustrate all its parts, the supply pump is shown under the outfit. When in position it is located between engine and tank and is thrown into or out of use by simply shifting the lever

Complete Powerful Efficient

What makes a power outfit expensive? Not first cost, but annoying delays in the field. You are losing money fast when three or four men are standing around waiting; the codling moth is busy and you can't get up necessary pressure.

Some Special Advantages of our Bean Giant Outfit are:

1. Three different capacities—you pump just the amount of liquid you want to use.
2. These capacities vary between six and ten gallons per minute—sufficient for from four to seven big nozzles or eight to eighteen Vermorels.
3. High pressure. Every outfit is tested at 250 pounds and is made to run at 200 pounds all the time at the capacities mentioned above.
4. A reliable make of engine with parts always near at hand.
5. Perfect agitation. An underneath suction. A splendid system of straining.
6. Not a thread inside the pump. Valves reached in thirty seconds, actual time.
7. Turns short, is low down, has improved relief valve. Dozens of other specials.

Prof. A. L. Melander writes under date of March 13: "Your Giant Sprayer works to perfection. Am wonderfully pleased with it. It certainly is great and you ought to feel proud of it. This is the *best* power outfit I know of. Your *New Angle Y* is splendid; they will go as fast as you can make them."

Have you seen the new *Angle Y* or this Giant Sprayer? *You haven't seen the best until you've seen the Bean.* Write for catalogue and name of nearest agent.

Everything for Spraying

BEAN SPRAY PUMP COMPANY

213 West Julian Street SAN JOSE, CALIFORNIA

Stanley-Smith Lumber Co.

WHOLESALE AND RETAIL

LUMBER

Lath, Shingles, Wood, Etc.

Hood River, Oregon

Oregon Box & Mfg. Co.

Portland, Oregon

MANUFACTURERS OF

SPRUCE BOXES

DRIER TRAYS

Write for price before placing your order

HOW AND WHEN TO PLANT TREES AND VINES

ABOUT nine-tenths of the trees and vines are set to orchard and vineyard in springtime; stock received in fall usually being "heeled in" in the garden, safe from rabbit and stock intrusion, until the soil becomes in condition to work in early spring; and, all in all, this is the safest method. As soon, however, as frost is well out of the ground, and before the sap commences to flow, the ground intended for planting should be well pulverized. Turn the land well—harrow or roll, as may be required to obtain a good bed. Cross-break and harrow, if necessary. I wish to say that in above is where half the failures in planting occur, and further, I would emphasize, that if you wish to succeed you must, in the first years of your orchard's life, keep the trees growing by keeping the sod loose and mellow, free from weeds, hard sod or small grain crops. To illustrate. Did you ever have a colt, calf or pig that may have been ever so promising when dropped, that became stunted from some cause, and which never did become recovered from that hide-bound condition? So, my brother, it is with a stunted orchard the first years of its life—only way to succeed is to dig up and plant anew.

When land has been thoroughly pulverized, take a good horse and plow and for the ordinary home orchard, mark off your rows twenty-one feet apart, and in cross-marking sink your plow good and deep in the checks, throwing a furrow out each way, which reduces the hoe work to a minimum. Twenty-one feet check requires one hundred trees to acre.

Trees taken from heeling grounds out to the planting field, should have roots well covered with damp sacks, blankets, straw, or better still, sufficient dirt thrown over roots to protect fully from sun or drying winds. Now, with a good strong hoe, a boy to drop them, a man should set 500 trees a day.

The writer in setting a thirty-acre vineyard, averaged six hundred vines to the man daily, and a two-year-old tree can be as easily well set as a two-year vine. With the hoe two or three strokes shapes the check to receive the tree (all bruised and broken roots having been cut out), and while the boy holds tree

R. E. HARBISON

We make them of every description

BOXES

A. L. NEWTON

Made of odorless White Fir

The kind that helped to make Hood River famous. Used by the best trade. Write for prices

HOOD RIVER BOX CO.

Formerly owned by the Davidson Fruit Co. HOOD RIVER, OREGON

FRUIT BOXES

WE ARE EXTENSIVE MANUFACTURERS OF

Five Pound Tin Top Baskets
Common Quart Hallocks
Plant Bands
Shipping Crates
Apple, Pear, Peach and Picking BOXES

OREGON AGENTS FOR THE

Hoquiam Patent Folding Berry Hallocks

WE SOLICIT YOUR INQUIRIES

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PINE BOXES

BRIGHT, LIGHT FRUIT BOXES FROM THE FAMOUS KLICKITAT PINE

Our new plant can fill your orders promptly and satisfactorily and save you money. Send your specifications and ask for prices

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DOING A GENERAL ELECTRIC LIGHT AND POWER BUSINESS

TWENTY-FOUR HOUR SERVICE

City Water Works System for Domestic and Municipal Use. Are prepared to furnish 3000 Horse Power, either Electric or Water, at Reasonable Rates

General Office, HOOD RIVER, OREGON

straight up, the man draws loose earth about it with his bare hands, placing roots in as natural a position as possible; then, with the hoe, draw sufficient earth about it to cover well that part which stood underground in nursery row. A good idea then is to take hold of the body of the tree and give it light, gentle jerks upwards. This allows dirt to settle under the center of the tree, leaving the roots inclined downward, as nature caused them to grow. Then gently press but don't pack, the earth around trees with your "number nine" shoe.

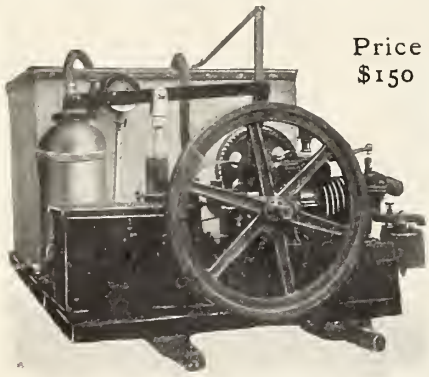
Follow this work up with a turning plow, throwing two furrows to each row of trees, and when through with the planting it is a good idea to go over orchard and straighten up any trees that may be slightly out of check by leaning over. Never leave over night any unfinished—even to the two furrows—and especially those unplanted out of the ground for the night.—Exchange.

◈ ◈ ◈

ONE of the longest steps in advance ever taken by sprayer manufacturers must be credited to the Wallace Machinery Company, of Champaign, Illinois, Minneapolis, Minnesota, and Spokane, Washington. Their latest addition to spraying devices is an automatic regulating and unloading device, for use in connection with power sprayers. This device consists of a pressure-controlled valve, which graduates the feed to the pumps just in proportion to the number of nozzles in use, and throws the load all off the pump when the nozzles are closed, while still maintaining the pressure. This action results in a saving of over one-half the power required to spray the old way. By actual test on an all-day run at the National Apple Show, at Spokane, Washington, a Wallace New Peerless Engine Power Sprayer maintained a constant pressure of 180 to 220 lbs., with an average number of forty engine exhausts per minute. When the ordinary relief valve was used instead of the Wallace device, the number of exhausts was about ninety per minute. A very great saving in wear and tear, as well as in fuel, is consequently effected by the Wallace device. Another noticeable result was the absolutely steady pressure maintained, there being no vibration of the hand on the gauge whatever. The Wallace Sprayers for 1909 will be fitted with this device. Information will be supplied by the company from its nearest office.

Now is the Time to Spray

This is the machine to do your spraying



Price $150

PACIFIC POWER SPRAYER

Weighs 350 Lbs. Pressure up to 250 Lbs.
Adjustable Capacity for 2, 4 or 6 nozzles.
Write for interesting literature fully describing this little machine. Do you need a small gasoline engine? How about a one and one-half horse power air cooled engine, at $40

Descriptive circular on request

Manufactured by

Reierson Machinery Co.
182 Morrison Street, Portland, Oregon

WRITE US
for tip on how to put
COLOR ON FRUIT
and make it a
LONG KEEPER

Certain Fertilizers with certain Soils—that is the Secret—and we speak from
TWENTY YEARS' EXPERIENCE
with Pacific Northwest soils—experience that means dollars for the Fruit Grower

WE KEEP ALL COMMERCIAL FERTILIZERS
POTASH Muriate Sulphate
BONE MEAL BLOOD MEAL
TANKAGE
All our Analyses Guaranteed

SPRAY PUMPS FOR ORCHARDIST OR GARDENER
Spraying Materials for all Purposes and ALL SEASONS—ready to use at once, only needs diluting. We keep Scalecide, Lime & Sulphur Solution, Arsenate of Lead, Whale Oil Soap, Quassia Chips, etc., etc. JUST OUT—Write for our new No. 205 Catalogue.

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PORTLAND, OREGON
SPOKANE, WASH.
PORTLAND SEED CO

ORIGINAL AIR COOLED "NEW-WAY" ENGINE GOES AND GOES RIGHT

EASILY DETACHED
ALWAYS READY FOR ANY WORK IN ANY CLIMATE

THE "New-Way" POWER SPRAYER

IS EQUIPPED WITH THE FAMOUS

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OR
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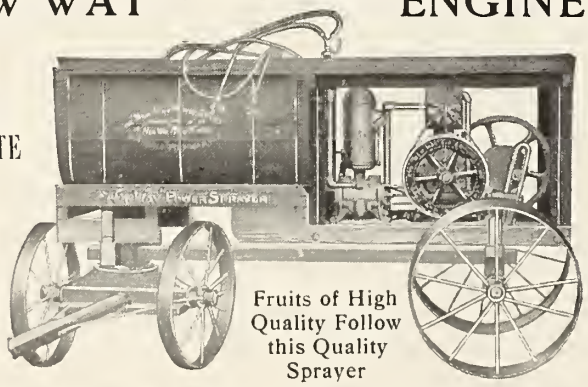

Fruits of High Quality Follow this Quality Sprayer

Carries high pressure without the usual vibration or strain, and is the most practical, durable and economical machine ever built for spraying. Use your own running gear if you prefer. Write us today for Spray Catalogue No. S-8

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Allen Fruit Caliper

Sizes Fruit accurately, rapidly and enables the practical Grower to put up the Commercial pack for the Fancy Trade. Live Agents wanted in every fruit district throughout the world.

CORRESPONDENCE SOLICITED

ALLEN & ERFERT
MISSOULA, MONTANA

THE KIND OF FRUIT TO KEEP IN COLD STORAGE

AMONG the fruits grown here, the winter apple is about the only one that lends itself readily to storage for any considerable length of time, and, in fact, it is about the only fruit ordinarily kept in commercial storage. It would seem that in the several counties producing fruit on a commercial scale, the problem of congested transportation must be met in the very near future by the construction of large cold storage warehouses at all principal shipping points.

The keeping of apples on a large scale in refrigerated storage began about 1890. On December 1, 1898, there were approximately 800,000 barrels in cold storage. Each year the figures have increased by leaps and bounds, until in 1903 (the last report obtainable), there were 2,348,540 barrels of apples stored in nearly one thousand warehouses. This rapid increase has been due to the development of improved methods of refrigeration.

There are several methods practised for securing the requisite and even low temperatures. These are engineering problems based upon a few simple fundamental principles. Briefly, these are: First, perfectly insulated storage chambers; second, the passage of a gas, liquified by compression, to such a point

HEADQUARTERS FOR

CENTURY SPRAY PUMPS

Hose, Nozzles, First-class Plumbing Supplies

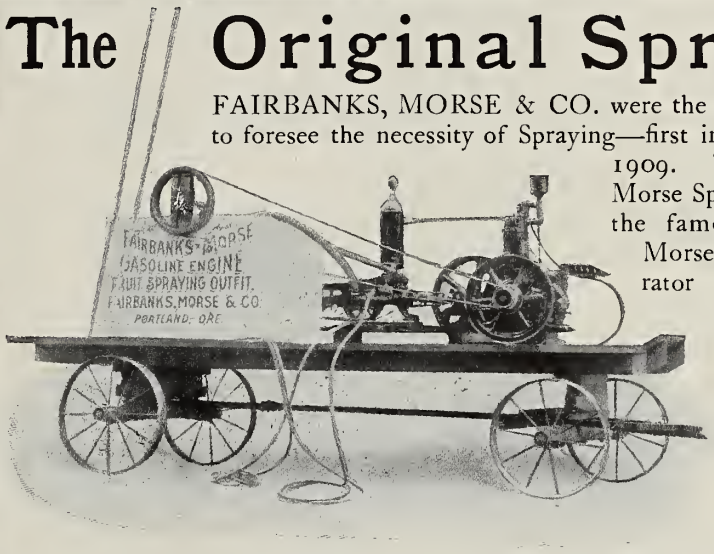
C. F. SUMNER

Successor to Norton & Smith

HOOD RIVER, OREGON

The Original Sprayer

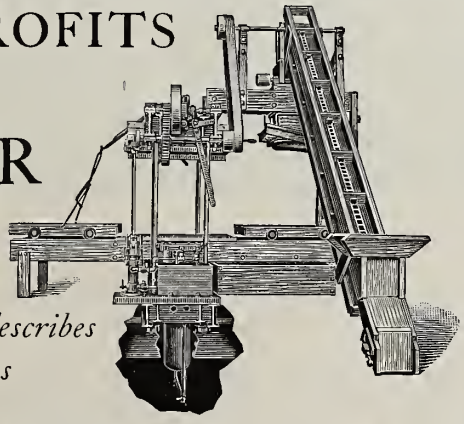
FAIRBANKS, MORSE & CO. were the first on the coast to foresee the necessity of Spraying—first in 1895—first in 1909. The Fairbanks-Morse Sprayer consists of the famous Fairbanks-Morse Vertical Evaporator Type Gasoline Engine to which is direct connected a 2½ x 5 Fairbanks-Morse Double Acting "Mist" Spray Pump, which gives a working pressure of 200 lbs., sufficient to force the spraying mixture into the smallest recess, in which insects might lodge.



We furnish Portable Spraying Outfits as per the cut; skidded outfits with engine, pump, tank, agitator, etc., or the bare engine and pump ready for you to mount. All information gladly furnished. We can please you. All outfits ready for immediate shipment. Send for free catalogs and prices.

FAIRBANKS, MORSE & CO. First and Stark Streets Portland, Oregon

BIG PROFITS IN CIDER



Write for Catalog which fully describes and illustrates

THE ORIGINAL MT. GILEAD

HYDRAULIC

Cider and Wine Presses

Capacity, 10 to 400 barrels per day. Made in all sizes, hand or power

FULLY GUARANTEED

Write for any information desired. We can show you how $1,500.00 clean profit can be made.

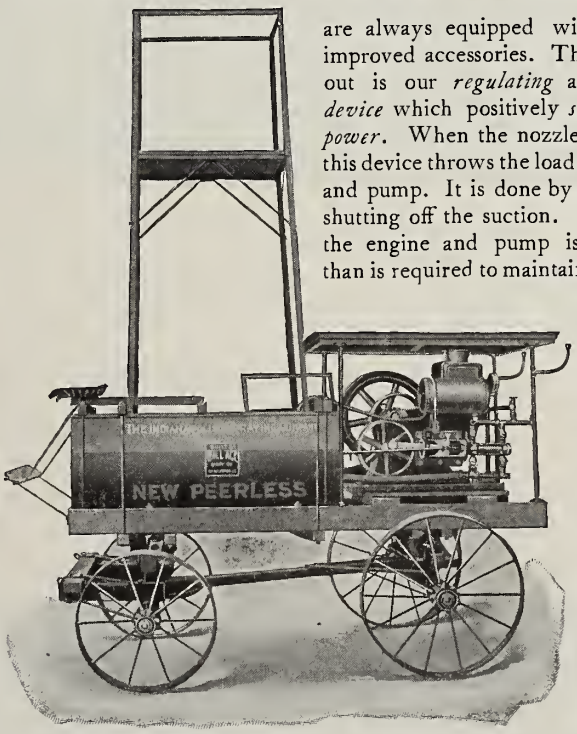
The Hydraulic Press Mfg. Co.

Largest Manufacturers of Cider Presses in the World

60 Lincoln Avenue MT. GILEAD, OHIO

WALLACE POWER SPRAYERS

are always equipped with the most improved accessories. The latest thing out is our *regulating* and *unloading device* which positively *saves half the power*. When the nozzles are shut off this device throws the load off the engine and pump. It is done by automatically shutting off the suction. The load on the engine and pump is never more than is required to maintain the pressure on whatever number of nozzles are used. Consequently our machines work under the minimum load all the time, instead of under the maximum load as others do.



New Peerless Mounted

Our New Peerless Sprayer shown above was the wonder of the National Apple Show, Spokane. It maintained a constant pressure of 200 to 220 lbs. with less than half the usual power. Better get informed about this. The device is applicable to all kinds of sprayers

AMERICAN SPRAYER & SUPPLY CO.

SPOKANE, WASH. Manufacturers Wallace Sprayers CHAMPAIGN, ILLINOIS

where, in its expansion and evaporation, it absorbs the heat either from the air of the chamber itself or from air or brine, which is then pumped through the chamber.

Certain problems have arisen in connection with the cold storage of apples, and the more serious ones have already been solved.

The apple passes through a definite life cycle, of which that part which it lives on the tree is only its youth.

Ripening takes place much more rapidly after it has been picked, until in a certain time it reaches its very best condition, after which, even if not attacked by disease, it passes through senile old age to death.

We do not prevent but only hinder the natural processes when we place the fruit in cold storage. One sign of approaching death is what is known as "scald," due to the dying of the cells immediately under the skin. The susceptibility of the apple to "scald" depends not only upon the variety, but upon the method of handling after harvesting, the kind of soil upon which it is grown, method of cultivation, age of tree, and many other factors.

When picking apples for storage the following points should be remembered:

First—Only the better grades should be stored.

Second—They should be stored as soon as possible after picking.

Third—Only "hard ripe" fruit will keep well in cold storage.

Fourth—A uniform temperature of 31 degrees to 32 degrees Fahrenheit, is best.

Fifth—They should be put on the market as soon as they reach their highest maturity, or before. A mid-winter variety is best marketed in midwinter.

Sixth—Apples with color do not, as a rule, scald so rapidly as other kinds. The Mammoth Black Twig is an important exception.

Seventh—The quality of the fruit is maintained better in storage when the fruit is wrapped.

As a rule the development of fungi producing apple rots is checked by storage, but recently certain rots peculiar to stored apples have been investi-

Read What They Say at **PULLMAN COLLEGE**
RIGHT HERE IN THE PACIFIC NORTHWEST ABOUT
EAGLE BRAND ARSENATE of LEAD

FAR SUPERIOR IN DESIRABLE PROPERTY
Pullman, Wash.,—More striking differences were observed in the tendency of the compounds to remain suspended in water or to settle quickly when mixed with water. Its ability to stay in suspension, a property very desirable for spray purposes, the Eagle Brand is far superior to any of the others. This was even more noticeable after longer standing. (Report shows the proportion was 10 to 1).
B. W. THATCHER, Station Chemist.

WE ADVOCATE ITS USE AT EVERY OPPORTUNITY
Pullman, Wash.,—Eagle Brand Arsenate of Lead has given better results than any of the other brands of arsenate that we have tried. The differences have been so marked that I do not hesitate to recommend your brand to anyone inquiring. Gives entire satisfaction in controlling Codling Moth as well as other insect pests and we are advocating its use at every opportunity.
A. L. MELANDER, Entomologist.

Eagle Brand adheres to foliage forming a thin film which is not easily Washed off by rains, and therefore does not require repeated applications involving much expense. It is particularly well suited for spraying tender foliage because it does not scorch even when applied in strongest solutions. It remains in suspension a long time without requiring constant agitation.

For information, folder and prices address the great Seed and Supply House. Also write for Spray Book

THE CHAS. H. LILLY CO., SEATTLE AND PORTLAND

GRASSELLI'S ARSENATE OF LEAD

For the Destruction of the Codling Moth and All Leaf-Eating Insects, Use Grasselli's Arsenate of Lead

CODLING MOTH

¶ Grasselli's Arsenate of Lead is manufactured only by The Grasselli Chemical Company, established 1839, General Offices, Cleveland, Ohio. ¶ When applied, ordinary rains will not wash it off. It is not injurious if applied unskillfully or in too great quantities. ¶ Grasselli's Arsenate of Lead can be used successfully against all leaf-eating insects, including the Codling Moth, Canker Worm, Elm Leaf Beetle, Potato Bug, Gypsy and Brown-tail Moth, etc. ¶ **Grasselli's Bordeaux Mixture**—a preventive of all fungous diseases. ¶ **Grasselli's Bordeaux-Lead Arsenate Mixture**—an insecticide and fungicide combined in one effective article. ¶ Write for descriptive booklet, giving information how and when to spray.

THE GRASSELLI CHEMICAL COMPANY
Main Office, CLEVELAND, OHIO

BRANCH OFFICES
NEW YORK, N. Y., Sixty Wall Street
CHICAGO, ILL., 117 Michigan Street
DETROIT, MICH.
MILWAUKEE, WIS.
ST. PAUL, MINN.
ST. LOUIS, MO. 112 Ferry St.
CINCINNATI, OHIO
BIRMINGHAM, ALA.
NEW ORLEANS, LA.

Send Inquiries to Nearest Office

gated. Freedom from such troubles, however, is so dependent upon carefulness in handling the fruit during picking and packing that the better orchardists will always be little troubled with losses through these diseases.

Indirectly cold storage tends to promote a higher order of orcharding by teaching the grower better selection and methods of culture and more skill in the art of handling and marketing his crop. —Northwest Farm and Home.

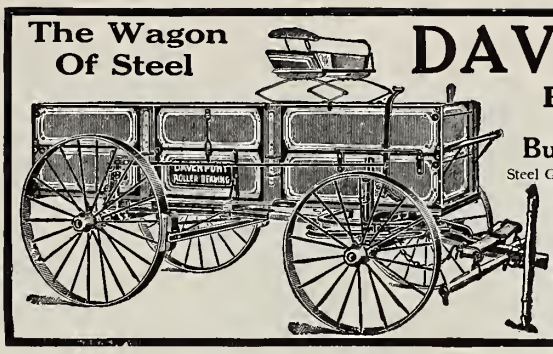
PATENT TREE FENDER

The accompanying cut is the only invention in whiffletree fenders; patented, December 1, 1908. It is a well-known fact that whiffletrees injure fruit trees by removing the bark and oftentimes

scarring the trees as the horses are driven through the orchard in plowing or cultivating. The object of my invention is to provide simple and efficient means for preventing the outer ends of the whiffletrees from skinning or bruising the trees. Every fruit grower buys them on sight. The retail price is $1.00 per pair; wholesale, $9.00 per dozen. Manufactured by C. H. Smith, Freewater. Oregon.

The Wagon Of Steel

DAVENPORT



Roller Bearing

Makes draft 30 to 50% lighter.

Built the Modern Way

Steel Gears and Wheels trussed like a bridge. Automobile Hub. Oil Without Removing Wheels.

Get Our Free Book

It pays to know the Davenport Roller-Bearing Steel Wagon. Cheapest because it has double the life of the best wooden wagon. Write now for Catalog V, to

DAVENPORT WAGON CO.
Davenport, Iowa.

Planet Jr.

Orchard Cultivator

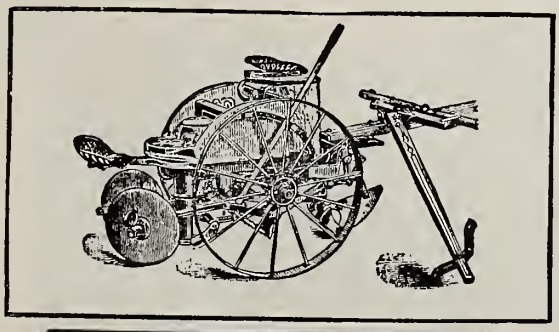
A boon to every orchardist, grape-, and hop-grower! Particularly adapted to your work. Equipped with attachments which cultivate, furrow or hoe at any desired depth. Three sizes working up to 7 ft. 9 in. wide at one passage. Has a side-hitch and fruit-tree shield. Can be equipped also as a disc-cultivator. Low wheels enclosed by frame: steel tongue, strong construction, adjustable for depth and width of cut. Easily handled. You need the Planet Jr. to get the most profitable yield. Fully guaranteed.

We carry stock in San Francisco. Agencies in all principal Pacific Coast cities. Write for name of nearest agent. Write today for new illustrated 1909 catalogue of Planet Jr. Orchard Cultivators, Beet Cultivators, Horse Hoes, Seeders, Wheel Hoes, etc. Mailed free.

S. L. Allen & Co., Box 1109U, Philadelphia, Pa.

IRON AGE

IMPROVED ROBBINS POTATO PLANTER



PLANTS A LARGER POTATO

PLANTS 100%

Spaces from 12 to 24 Inches

DOES NOT BRUISE OR PUNCTURE THE SEED

Makes No Misses or Doubles

Furnished With or Without Fertilizer Attachment

For Sale by over 200 Agencies in Pacific Northwest

Ask for IRON AGE Catalog describing Garden Tools

R. M. WADE & CO.

OLD-ESTABLISHED IMPLEMENTS & VEHICLES UP-TO-DATE

322 HAWTHORNE AVENUE
PORTLAND, OREGON

A Quarter of a Mile of RED APPLES

This 20-acre Apple Orchard

Gave Mr. F. Walden, Yakima Valley, Washington

$21,000 Income in One Year

Yakima Valley

WASHINGTON

The Home of the Prize Red Apples

It is up to you to get a home in this Wonderful Irrigated Valley. This is the Land of the Moneymakers.

YAKIMA VALLEY

On the line of the

Northern Pacific Railway

NORTHERN PACIFIC YELLOWSTONE PARK LINE

For descriptive printed matter, write to
C. W. MOTT,
General Emigration Agt., Northern Pacific Railway
St. Paul, Minn.

White Salmon Valley

WASHINGTON

Across the river from Hood River Valley, Oregon, in the Banner Apple Belt of the World

The WHITE SALMON VALLEY today presents OPPORTUNITIES FOR INVESTMENT beyond that of any other FRUIT REGION in the Northwest. It is the north half of a LARGE VALLEY lying between Mount Adams on the north and Mount Hood on the south. The mighty Columbia flows between and divides this valley. From the Columbia River to Mount Hood forms the Hood River Valley, and from the Columbia River to Mount Adams forms the White Salmon Valley. Both these mountains are snowclad all the year and influence the climatic conditions. This, together with a volcanic ash soil, produces apples that are superior to all others in the world in FLAVOR, SIZE, COLOR, and, most important of all, KEEPING AND SHIPPING QUALITIES.

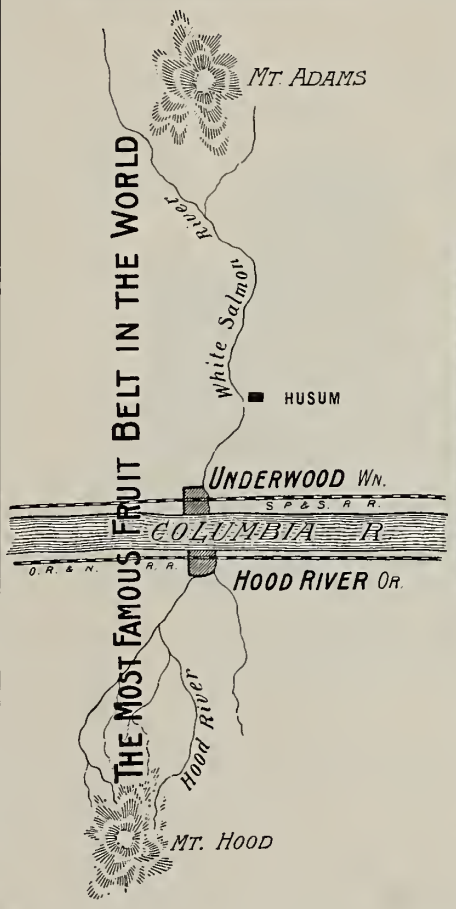
Ninety per cent of the fruit grown in this valley is exported, bringing the highest market prices.

THE CLIMATE of this region is ideal. It is located in the midst of the CASCADES, with a pure mountain air and free from excessive rains or drouth. The snow-covered peaks at either end of the valley temper the heat of summer and make the summer nights cool and invigorating. The winters are as a rule mild and short. The scenery is as fine as may be found anywhere on the continent.

The valley has been held back heretofore through lack of railroad transportation, but the SPOKANE, PORTLAND & SEATTLE RAILROAD, part of the Hill system, now in operation, gives this valley the best of shipping facilities.

NOW IS THE TIME TO SECURE A CHOICE ORCHARD TRACT AT A LOW FIGURE. Write today for particulars of this wonderful valley to the

WHITE SALMON VALLEY DEVELOPMENT LEAGUE, WHITE SALMON, WASHINGTON



UNDERWOOD

The Gateway to the White Salmon Valley

WHITE SALMON VALLEY FRUIT GROWERS' UNION OF UNDERWOOD, WASHINGTON, Won three important premiums at Spokane—First on Best Four-Tier Newtowns, Second on Best Ten Boxes Newtowns, First on Best Pack.

Twenty minutes from Hood River by ferry. Two hours by rail, seven hours by boat from Portland. Twenty-five thousand acres first-class fruit land tributary to this point. Has a strong Apple Growers' Union, which controls output of the valley. Same fruit, same markets, same prices as Hood River has. Fine class of people coming in—a community of *homes*. Land close in to river and railroad, $40.00 to $150.00 an acre *now*, but advancing rapidly.

Write, phone or call on

W. F. CASH UNDERWOOD WASHINGTON

Come to **UNDERWOOD and HUSUM**

FOR WHITE SALMON VALLEY ORCHARD LANDS

These two districts comprise the major part of the White Salmon Valley, which, separated from Hood River Valley by the Columbia River (a scant 1¼ miles), is just beginning to feel the effects of the great rush of Eastern people to these favored spots along the Columbia River. We have a territory greater than Hood River, while all our conditions are identical with that famous spot. We have a strong Apple Growers' Union, composed of wide-awake business men. At the National Apple Show we won first on best four-tier and second on best ten boxes of Newtowns, and first on best commercial pack.

Underwood, at the mouth of the White Salmon River, is twenty minutes by ferry from Hood River, and two hours by rail or seven hours by boat from Portland. All trains on the North Bank stop here, and the survey of a branch road to run up the valley to Husum has just been completed. Husum is six miles up the river, at the falls in the river and the forks of the Trout Lake and Camas Prairie roads. It has a hotel, store, post office, blacksmith shop, school, and an electric light plant intended to supply current to the people of the valley. This is destined to become a busy little town, as it is in the heart of the best orchard land of the valley. Good lands are comparatively cheap as yet. Full information from SECRETARY OF IMPROVEMENT CLUB, Underwood, Washington

MAJESTIC

Malleable and Charcoal Iron

RANGES

"The Range With A Reputation"

Movable Reservoir Flush With Top

With High Movable All Copper Reservoir

Suitable for all sizes of families and all kinds of fuel.

We were the first to try to make indestructible goods. We have come as near to it as is possible for human beings.

The kind of goods that count, are those you can count on.

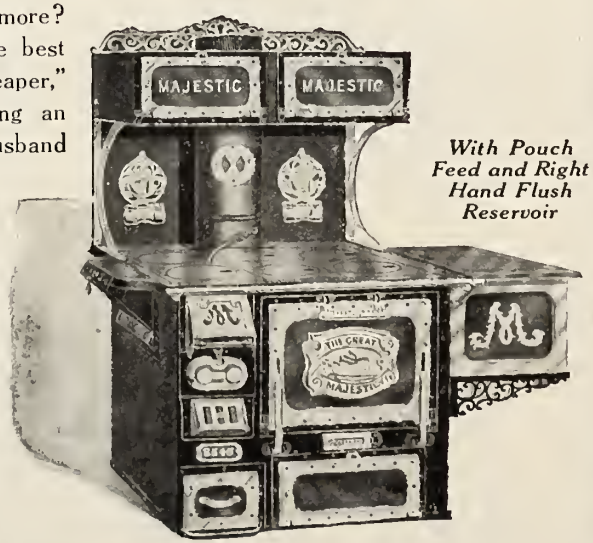
We started 20 years ago. So far as we know, all ranges sold the first year, are still in use.

The Majestic Range saves you time, labor, patience and money. Every housewife is entitled to the best range on the market. What if they do cost a few dollars more?

You are not after "Cheap Stuff." You want the best and must not be misled by the cry of "this is cheaper," and "isn't this a handsome range." You are buying an article for use from about 6 to 16 hours a day. Your husband buys nothing that gets such hard usage. He buys the best plow or wagon because it's the cheapest in the long run. No article in the house or on the farm should be bought with as much care, for the above reasons. Isn't it queer that people will try to bankrupt themselves by buying "Something Cheaper?"

Ask your friend or neighbor who has one. The Majestic Ranges are for sale in nearly every county in 40 States. If you would like to know more of their merits, write to the Majestic Mfg. Co., St. Louis, Mo.

With Water Front For Pressure Water Heating

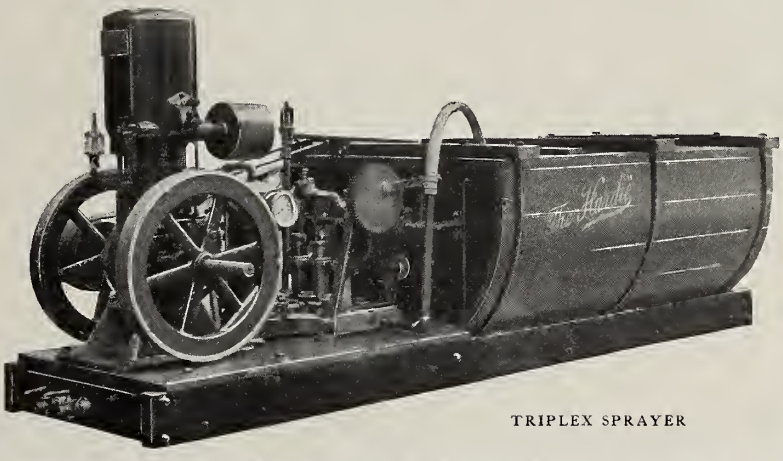


With Pouch Feed and Right Hand Flush Reservoir

THE ADVANTAGES OF USING

The Hardie Triplex Sprayer

Nothing to Watch but the Spray



TRIPLEX SPRAYER

The Sprayers with the trouble *left out*

Anyone desiring a power sprayer should see the Hardie Triplex before purchasing. Ten years manufacturing experience are back of this sprayer, and its mechanical merits are so plain that the most thorough investigation can but make you like it better. A partial list of the direct advantages to you are given below:

Simple construction.
Light weight.
Strongly built to last for years.
Capacity up to ten gallons of liquid per minute.
Pressure regulated as desired to 225 pounds.
All valves are hard bronze balls.
All plungers outside packed.
Use of engine for other purposes.
Change of speed of engine while running.
High quality of equipment.
Reasonable price.

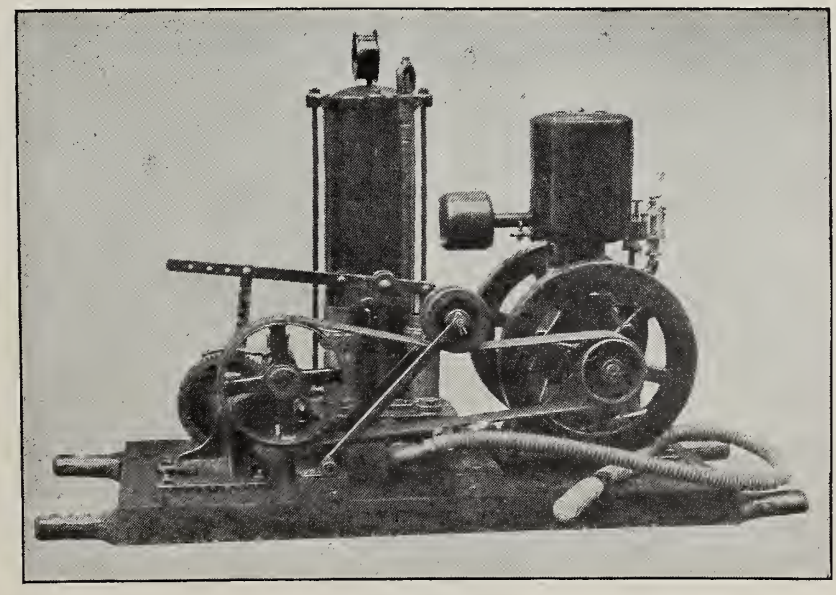
Our catalogue tells about our whole line. It is yours if you write us.

This Simplex Sprayer will meet the demand of the small grower, or one whose orchard is on the side of a hill, together with the strawberry and hop growers. It consists of our 1½-horsepower engine and Simplex pump, mounted on a platform ready for work. Its total length is 4 feet, width 2½ feet.

It will supply four gallons of liquid per minute, and up to 200 lbs. pressure.

We sell you this sprayer and guarantee it for less than some ask you for an engine alone This machine will work for less than your hired help. Have your engine for other work too. Better investigate this sprayer before buying.

The construction of the Hardie Sprayer is so very simple a child can run it; so strongly made that it will last for years, and so perfectly built that it is called "The Sprayer with the trouble left out."



SIMPLEX SPRAYER

THE HARDIE MFG. CO.

Hudson, Michigan 22 Front Street, Portland, Oregon

Summer Rates East

DURING THE SEASON 1909 VIA THE

Oregon Railroad & Navigation Co.
Oregon Short Line and
Union Pacific Railroad

FROM

Portland, Seattle, Spokane, Tacoma, Walla Walla and all Points on the O. R. & N. Line

To Omaha and Return - - - $60.00
To Kansas City and Return $60.00
To St. Louis and Return - - $67.50
To Chicago and Return - - - $72.50

and to other principal cities in the East, Middle West and South at correspondingly low rates

On Sale June 2, 3; July 2, 3; August 11, 12

To Denver and Return - - - $55.00
On Sale May 17, July 1, August 11

Going transit limit 10 days from date of sale, final return limit October 31st.

These tickets present some very attractive features in the way of stopover privileges, and choice of routes; thereby enabling passengers to make side trips to many interesting points enroute.

Routing on the return trip through California may be had at a slight advance over the rates quoted.

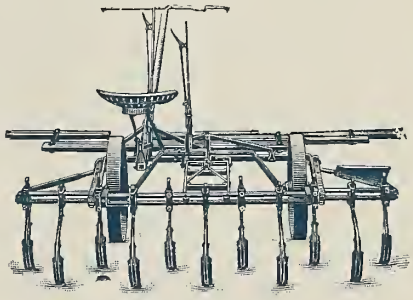
Full particulars, sleeping car reservations and tickets will be furnished by any O. R. & N. local agent, or

Wm. McMurray, General Passenger Agent, **Portland, Oregon**

TWO TOOLS WITH BUT A SINGLE PURPOSE

TO INCREASE FRUIT CROPS

Planet Jr. No. 41 Orchard Cultivator

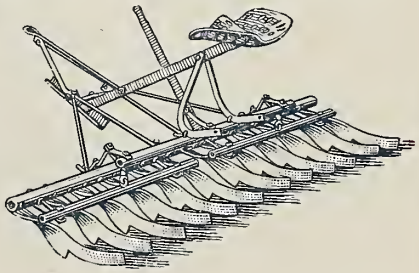


We think you will agree with us when we say that cultivating is the most important part of fruit growing and it should be done with a thoroughly reliable tool. This Planet Jr. No. 41 has made a big hit wherever it has been used and we believe it to be superior to all other orchard cultivators. With extensions it cuts six feet six inches. Without extensions it cuts four feet.

Send for Booklet—"Preparation of Soil"

Acme Orchard Harrow

Here is a tool that is universally used as an orchard harrow and orchardists and farmers say there is nothing in the harrow line to equal it. It is a thorough pulverizer and smoothing harrow. It draws little heavier than an ordinary drag and its use is many times more beneficial. To any progressive fruit grower this tool is worth twice what we ask for it. If you want to get the best results use an Acme



Mitchell Lewis & Staver Co.

PORTLAND OREGON

SPOKANE WASHINGTON

BOISE IDAHO

To Oregon, Washington and Other Northwestern States Fruit Shippers

CHAPTER I.

The shipping season is about over—perhaps completely so, with most of you. Perhaps you know more about the shipping business than you did when you began last fall; perhaps you know more about the credit standing of parties to whom you have sold or engaged to market your crops than you did before. This experience is expensive sometimes. How much did it cost you? Have you any costly trade experience that you think ought to be reported to an organization like ours? If so, will you kindly send it in. The source of such information will be kept confidential.

This is not our regular system of acquiring such information, but our membership is so large, their experience so varied and their reports so continuous to this office that it is possible to get pointers on business methods of commission merchants three thousand miles away that could not be acquired in their home city. This is distinctively a long-distance reporting proposition, and in proportion to the distance, we might almost say, it is effective. Many a commission merchant behaves himself at home, pays his bills well, has plenty of money, and stands high, locally, but makes a systematic effort to rob shippers. This is a broad statement, but it is true, unfortunately. Perhaps some of the Northwestern shippers are acquainted with the fact. Possibly they are not as liberally disposed in their views towards the average commission man as they should be. There are thousands of commission merchants that are just as honest as the shippers; sometimes, we think, more so than some shippers. We have seen both classes tested. Our idea is to accumulate information about both and to disseminate it amongst the paying subscribers for their guidance.

In the next issue we will say something more along this line, but in the meanwhile give us what information you have by first mail, please.

PRODUCE REPORTER CO. *34 South Clark Street, Chicago, Illinois*

Steinhardt & Kelly

101 Park Place, New York

The largest and most extensive fruit concern in the world operating in all the fruit growing sections of the civilized globe

---

Exclusive Purveyors of High Class Fruits

STEINHARDT & KELLY HANDLE MORE

BOX APPLES

THAN ANY OTHER CONCERN IN THE COUNTRY

and was the first fruit house to extensively introduce the Northwestern product to the consumers of the East. With able representation in all the leading markets STEINHARDT & KELLY are enabled to handle the entire crops of the most extensive districts with utmost ease and celerity

---

CORRESPONDENCE WITH ASSOCIATIONS, UNIONS AND INDIVIDUAL GROWERS WILL BE GIVEN PERSONAL ATTENTION